



SEQUENCE LISTING

<110> Wilkinson, Jack
McBride, Kevin
Bertain, Sean

<120> GENETIC CONSTRUCTS HAVING HETEROLOGOUS 3' POLYADENYLATION SIGNAL SEQUENCE
MOTIFS THAT FUNCTION IN PLANTS

<130> 0325.210

<140> US 10/600,230

<141> 2003-06-20

<150> 60/390,529

<151> 2002-06-20

<160> 81

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 485

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 1

```
gcgcgcggaa ggaggaaagt gactccttcg ttgcgtagac agtatgaaaa tattttttact 60
gtgatactta caagttgata tatgggttggt tgtaacttat ttatttgaga ggtatttttaa 120
cacaccttag aactaaaaact taataaataa atatttctct atcttttaaag gcacatatta 180
cgtgggctaag gcaattacag ctgatatact gtaaaactca tgtcgccact aaattcttct 240
aacacgcgtt ctgtctcttt ccaagggact ccgaatatgc cactatttat ctgtggcatt 300
tccaatttat attcccctat tgggtatttg atgtggccgt ttaaatagtc accgattgaa 360
tcttcacttg ttcgagtttt gtcttttgct tctctaaagg tcttcaattt atctaaagca 420
agttttgtat aattcaaaat actttgcttt tctccatgac ttgaacctcc aaatgatgag 480
gtacc 485
```

<210> 2

<211> 541

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 2

```
gcgcgcaagt cacaagtagt agcgagttac aacaaatctt ccctgttagt caacaataag 60
atgattatgt gttgtgtact acgaaaataa gcaaaaaata aataaaataa aaacaaaaaac 120
agaaacaaaa acaaaaaacaa aaacaaaaaac acatattggt atgatgactg gacgaaaagaa 180
agatcgtcgt tactttccta attgtttgct ttcagtagac ttattatcag tgttctcttt 240
cttttttatt gtactatgtg atgttactga tacatcacgc gcttccttta tgttttcttt 300
ttttatgttc gttacaggat ttatagtttt tacagtatat tgacttcaat aattttcta 360
attcagttcc tattaaattt gattattccg attagatcgg tcggcgctac caaaaagagg 420
cgaagaaaag aggaaaacgc aagtggataa aggggtgggg ggcaaaaagta ttaagaaaa 480
agcgatgcga tggagagaac aaatggataa gttgcgtttc ctcgtaatat tacaaggtag 540
c 541
```

<210> 3

<211> 666
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 3
gcgcgccatc caagagattg tctttgtctg caaggaaaat caacatgaga aaagtatgaa 60
aaatagacgg cttctactat catcattaca gtaagggttg aagtcaggaa aggttaaaaa 120
taaaataaat atcaaaaagt ttttagcgga aggcgttaag gcagcaagta cacattcatt 180
tatctatcta tacatctata aacacaacta caattttttt agaaatggaa tttattatat 240
gaagggaaga catatagagg caacagtaca taaaggtaag aataaaaagcg attttagcta 300
gtatatttct gggatatttct tacatagtct ttgtaaagca accacaccgt ttaagcttaa 360
atcttcgttc tccttgaatt tgcatagtac agcgtctaga atcaaaaatc ctagctcgcc 420
gtcatcattg ttcctgcaaa caaactcata ccacgagtcg atctcaaag ttttattcat 480
agatacacga atattgttca acgtaatcat ttcaacctcg ctgccgtttt tcgatgatat 540
ggttggcgat tgtaaaatca actgagattc agtgggttgt gatttgattt gcgctattat 600
cctaaacaca ggagcattga cgttggagat ttctgtgggg tcaactcttg gtgtttcgct 660
ggtacc 666

<210> 4
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 4
gcgcgcggaa ggaggaaagt gactccttcg ttgc 34

<210> 5
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 5
ggtacctcat catttggagg ttcaagtcac ggag 34

<210> 6
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 6
gcgcgcaagt cacaagtagt agcgagttac aac 33

<210> 7
<211> 37
<212> DNA
<213> Artificial Sequence

<220>

<223> PCR primer

<400> 7

ggtaccttgt aatataacga ggaaacgcaa cttatcc

37

<210> 8

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 8

gcgcgccatc caagagattg tctttgtctg caag

34

<210> 9

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 9

ggtaccagcg aaacaccaga gttgacccca cag

33

<210> 10

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 10

ggcgcgccta ggccaagccc tgcgtccagc gagc

34

<210> 11

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 11

cgggggtaccc cgagtcagct tgtgcaacag cgtcg

35

<210> 12

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Mutagenic Oligonucleotide

<400> 12
 taatatacat tttatgactg aattcttttt tgtacaacac tcc 43

<210> 13
 <211> 44
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer

<400> 13
 ggagtgttgt acaaaaaaga attcagtcac aaaatgtata ttac 44

<210> 14
 <211> 44
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Mutagenic oligonucleotide

<400> 14
 ggagtgttgt acaaaaaaga attcagtcac aaaatgtata ttac 44

<210> 15
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Mutagenic Oligonucleotide

<400> 15
 aattcacaca cacacaaaca cacacag 27

<210> 16
 <211> 510
 <212> DNA
 <213> *Saccharomyces cerevisiae*

<400> 16
 tgaagaagag tgactgaatt ttgaatttga ttatcttcaa cgactgagaa gaatgagcac 60
 cattttgata ttttgattaa ttaagtggta atcttaagct catatacaaa aagggaagga 120
 aaaaaataaa agatagaaaa gatcttagga acggatagag gtttgaaaaa ggaataacag 180
 gtaatttttc attttcatat cggttgtaac attataaagc tcacaaattt aaaacaaaaa 240
 aaaacataaa cctaacaagg ttaatcattt gcacatgatc tcatcatata gatcaattca 300
 taatctatat aataatgaat aattagaata aaaatttcct cttgtctcag aacgcccatac 360
 ggatggcata acttttagtta atgatatcac gacggacgaa gtattgaaag acaacctaac 420
 ctgttcatca atttaaaagt caacgcagaa actataatac attgccacat agttctttcc 480
 gatatgaaca acctaactca caaaatttac 510

<210> 17
 <211> 877
 <212> DNA
 <213> *Saccharomyces cerevisiae*

<400> 17

```
attaatggat gccttcaatg agttccacga cgcacgttta ttttttcgac tgagaatccc 60
tcagcaaata taatctatct tttatatatc tgtgtatatg taagcatgta taactagtta 120
caaatatgat aactgctttg gcgatcactt ctttttcttg agaggggtac tcagtagccg 180
ccaagcacga aatgtccgtt attaaaaatt ggggagtga tcttaaaagc ccgaaaagga 240
aattcaaaat ctgtctatct ataggccgtc gcgctctacg aaaacgcgaa attattcaaa 300
cggaaaacgg aaaaaaatct aaaaaaagaa attaattgag agatctcacg gaaatgccgc 360
gaggaatgtt tctcgaggct gagcggcgtg gtctgtgcaa aaaaatggca atttttttgt 420
aggagtgtgc attgggccat tcagaaggag caccgttaga tgggatggta aatgaatttg 480
ctgtttcaga tttgaatcaa tctttaccgc ttatttttgc cgttttgctt tcataatctg 540
caaattaaca aagtcataaa gaacataaag acatcacccc agttttttaca ctcttttttc 600
ctgtgtttgg ttttagcaca ctttccaata accaagttgg tttcagatca tccccatatt 660
attttctagt ttcatttact taccaaactc accattcaag gctttcaa atagttacga 720
gtacagtggg ccattttttt ctgattcttc atattttccg ttataagtct tataaggaag 780
gtatacatct atattgcgaa tttgaaaaat aatttaaagc tgactttgcg ttttaggtag 840
gctagaaaag aatacaacta tccctaaaca cattcta 877
```

<210> 18

<211> 669

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 18

```
tagctttatt ggatgacttt atggaaaatt catgttttga gtataaatta tacgtacgaa 60
tcttatagat atatatcttt cttttaaaac tccatttcag ctcataagcc gatacaaaaca 120
ccttctatat attatttctc taacagctat gttaacatga ttgcctttgt ttatctacta 180
aaggaccctt ctactttatc taccatacgc ctatatcttc tctgtgtttc aatcatatcg 240
agaaaaatct ggtacttcgt gtctaaaaga attctatctg gatgagtttt ctcatattgga 300
ttgacaattc ttgcattacc cgtttagctct tgcataactt tccatagaaa acttgtcccg 360
ttatatcttc cctctcctag gctctcctgt cccacgggtca atgaagcatc cttactactt 420
tcctcagagg ttttgtcaag tgggtgttgt gtgcaaactg gaagagaata gttattttatt 480
ttggcaggcg cacttgaggt tgaaagttgt agattatgtg gggatacaaa gccatttgtc 540
gagtttcgat cttccattga taacttttgt atcgacgaat atgaatcggt aaaacgttcc 600
gtctttgtct gagaagattt ttggcctttg agagtctctt tttccctggt ataatacaaa 660
tcttcactt 669
```

<210> 19

<211> 443

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 19

```
aattgcgtcc aaagaagaag ttgaaataat cgatttatta cgatctccac aaatccaaag 60
tttgatataca tcacgatttt ttactacat atatatctcc ttttctattc tatttgtaaa 120
tgaggaggaaa tcttaatatg gacctctctt caciaattgt tctataatac aatatatatc 180
aagatataat aacaagtcatt ttgagataat ggtatgcaaa tacgcgaaat aagagtaaag 240
ggatacagtg agcctgaaga ggacaagctg cttccatgtt gtagtgttta gatatatgag 300
cttaaaatct agatttactg aatattatac aatagtaatt atacataaag aaattccatt 360
ttatctgttc gatagcaatg gaagaggaga gagttctgtg aaacaaataa cagcagcaca 420
gaaaactccc gtcaacgtaa tat 443
```

<210> 20

<211> 427

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 20

agtccactct	tcaccttgtc	ttgaggttga	ggggtggtaa	ctgatcagtc	ctcgcaatat	60
tttcattatg	tcaatatata	tatgtttact	ctcctttttt	cttttttggt	tttttttttt	120
tttgataaat	actccataga	acactaaata	aattgttcaa	ctgtgttatt	gtctttattc	180
atgttggttt	tcaagagctt	ggatttttga	tcgtcttata	ctatgacgtt	cactattttc	240
gcgaaccg	gtaataccat	tagctatttt	gatagaaagg	gattttttatt	aggggaatata	300
accacattta	aagtgtccta	tcatgtttca	atctccagta	aacgcacata	agccgaccaa	360
ttgagtcaac	cttttaactc	tattttaattt	gatacggata	gaatattgtg	actaccaaaa	420
gggaaaa						427

<210> 21

<211> 810

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 21

taagtgtcat	tccgtctaca	aggttaacgc	ttaagtaaag	tattttttaa	acttatatat	60
tttaattgat	cgtaaatttt	tgaaaaaggc	ttttaatatt	gtcattattt	actttttctat	120
ttacaacaaa	agaacaaatg	aatagataga	cagtagagga	atataagtag	tatgcagtgc	180
catgcgggat	caaggaattt	gtatctctaa	ttttcgtggt	tgtatgcgtc	tctaaacaag	240
tcaatatttt	gctgtaagat	ggttctgccg	ctcctttcag	ttcctttaag	aagcgtacct	300
gcagatattt	taacatcctc	catggtttca	ttgactttac	tgacaagtgt	attgctcaag	360
tcatcaacat	gtttttccca	attttcacta	aatacttgca	aaacagcatc	gaatcccat	420
ttaccctttt	tagcgtttctc	gcaaaacctt	tgaactgacc	aatcttccat	cttattacac	480
agcttttctaa	tggatccata	tgctgtaatt	tgggcttcct	gctggaaaag	tgttttatta	540
gccgagtc	cggtatgcgg	gctatatgtt	acagtttcgt	agacttttaa	tagattgcac	600
atcgttaaat	tacagcttct	catgggtcaag	ctctttttat	ttaagtctac	cacagaaact	660
tctctgacat	gactcatatt	ggccctcctc	agcatcatca	tgatccattt	gggaacacct	720
tgttttacag	taatcaaccg	ttcagtaact	aagaccttac	cttgatcctt	caattctctt	780
cttaaaacgt	ccactgcgat	gacatgtgta				810

<210> 22

<211> 763

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 22

tgatatagta	tatcatcctt	acgtatttga	cgttattaca	ttatatatag	tttctcaa	60
aatattttcta	gtttattttt	gtatcataat	aaaaacgtat	accaaata	ccattatttt	120
tcataacatt	atggtaggga	tagggaatca	agtaactaat	ttatatccgc	agagcattgg	180
gaaaaccaac	ggcgtagta	aatgcattta	aattacgtcc	gtccaacttc	taagcttcaa	240
tggtagactc	ttaactctga	ccttttttagc	aattaagctc	ttgaagatat	caaaaagtgtt	300
accgtccggc	tgtaaattat	aaacgtttcc	tgtaaattga	gtggaatacc	gcttaccatt	360
cttttgcaat	cagtaaaccg	tagtcttccg	tgataccagt	aatcatggct	tgcgattttc	420
cgtgatctgg	taatgttact	atttggttac	tatgtaacac	aactcataat	aacttggcaa	480
tatttccgca	gctccgtagt	taataaactg	ttttaatatg	acctcaagg	tattcatata	540
gagtgcctgc	agtttttctg	cctttattgc	tggcaataaa	tcaagggtga	attgttggcg	600
ttcttcattc	aggatatcaa	tccaagtttg	taatgaagtt	gtaggaccat	cactagtcaa	660
atttatacca	cagccaagta	gcaaacaata	tttattgttt	atgaagtggg	tattaactaa	720
taaaccagag	atcttaagat	aagcgggctc	gatatcacct	aag		763

<210> 23

<211> 498

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 23

tgatgcttac	gtttcttctg	acgaagaatt	ctaattcttt	tgatcactgc	tttcacagtt	60
------------	------------	------------	------------	------------	------------	----

ttctttaaga	tttttattga	tcaataat	atgtatatt	taatttctat	gtttttgtaa	120
tattgtttat	tttggtaaaa	tatagacgca	acttccttat	tataaagaaa	ggcattat	180
aaaagaaaaa	gcgttccatt	agtcagacat	cttttttttt	catacattct	taagctcagg	240
caaattgagc	attgcctcat	acccttttcg	gtaagagggg	aacgaaaata	tttttttgga	300
agaataaaaa	taggtgacgg	atcatagact	aggaagcttt	aaaacatgat	tgagcgtaat	360
attatattcc	ttctagaaaa	gataaaagag	ccaagaccta	aaattttttc	atccctgttc	420
tattaaaatt	gtggaaatga	ggtttttgag	gggatttgta	ttttcttgg	ctttcactct	480
atataaagta	actgccac					498

<210> 24

<211> 492

<212> DNA

<213> *Pichia pastoris*

<400> 24

agtttgtagc	cttagacatg	actgttcctc	agttcaagtt	gggcacttac	gagaagaccg	60
gtcttgctag	attctaata	agaggatg	agaatgccat	ttgcctgaga	gatgcaggct	120
tcatttttga	tactttttta	tttgtaacct	atatagtata	ggattttttt	tgtcattttg	180
tttcttctcg	tacgagcttg	ctcctgatca	gcctatctcg	cagctgatga	atatcttgtg	240
gtaggggttt	gggaaaatca	ttcgagtttg	atgtttttct	tggtatttcc	cactcctctt	300
cagagtacag	aagattaagt	gagaccttcg	tttggtcgga	tccccacac	accatagctt	360
caaatgttt	ctactccttt	tttactcttc	cagattttct	cggactccgc	gcacgcgcgt	420
accacttcaa	aacacccaag	cacagcatac	taaattttcc	ctctttcttc	ctctaggggtg	480
tcgttaatta	cc					492

<210> 25

<211> 876

<212> DNA

<213> *Pichia pastoris*

<400> 25

tctaaagagt	agcaattctg	atgaggggct	gagatatctc	agcactttgt	catactcact	60
tcaaaccctt	gtattatcaa	aaagtttctc	gatgccgggg	cggctaaggc	tcaagtctag	120
tcagccgtgg	tatcttctga	actgcatcac	gagttttatg	cgagcattag	tacggcgctc	180
tagcgattcg	ggtttggttg	gttttttttt	ctaaggcaat	tttcaacacg	attcacaaat	240
tagacagtcg	cacaccgcag	gttgaaaagg	gggcggtact	gcgcgctggg	cggcttggtg	300
ctccttctta	attccccgtt	tgtcttccag	tctattgaca	ccgagggtct	ctcgaactgc	360
tctatgcagt	ctcttggttg	actcgtcttt	tttttcccgt	gggcactggg	ctccctgttt	420
tagatcgctc	tacttaattg	atgcctgatg	acgggtttgt	aagcctgatc	cagtagcatt	480
acttaacata	taaaataaaa	agtggatgag	atctttcttt	cgccgttttag	gtcttaaaaag	540
ccagtttgcg	tcttaaagcc	agtttgcgaa	tataaatgtt	cgtataagga	tgaatcgat	600
tcaaagaatt	aaattgtcag	aaaaactact	gatgctcgca	taagacatgt	gatgcagtcg	660
aagatacgca	tgcataata	tatatatact	agctaatac	cacccaatat	atataccct	720
ctccgtttat	ctatttcaca	cacataccaa	aagctgggtt	tatccgtcag	acctacaacg	780
cactctcccg	cttcgctttc	tgccccttcg	ccaactcatc	caaaagcagc	agccgcttat	840
cccctgaacg	acttccatcc	tctgttccgt	caaagt			876

<210> 26

<211> 577

<212> DNA

<213> *Pichia pastoris*

<400> 26

actgttgctg	agacatgagc	ggggctactt	acagctggcc	gcagtatcta	catgacacat	60
catcggtgtt	gttggtgttg	ttgtgtgtgt	tgcatggcca	tctgggatcg	ccctttcgct	120
gcctgtgtct	cggtgtccaga	ccccgcgcgt	ccttggctgt	agtctctgta	cgtatgggtt	180
tgcatttacg	gccagctggg	atctggcttt	ttggagttac	tttttgggat	ttggaaagaa	240

ctacacagct	tgttgccctgg	agcgatgcct	tggacaacaa	acaggaaaat	cgacggaaaag	300
gatgcaataa	tggacgggaa	gttttagagtc	cttgcatctgg	aggcgggcat	aggcagccct	360
ggaatacaga	accctgtaga	gttaaggagt	gtaaacaccc	gacacagtat	ataccaggcc	420
cctttgtctc	agggcacgag	ccaggggcct	atagagcgat	aaaaccatgc	gactattgat	480
aataatgata	accagcagcg	catagcccag	tacgaggcct	tgacgtcaag	gtcagtttct	540
gcagaacaat	cgcattatcg	aatccatgga	atgcact			577

<210> 27

<211> 650

<212> DNA

<213> *Pichia pastoris*

<400> 27

atcgtccacc	gcaagtgcct	ctaaggatatg	agtcgcaaaa	ttgtttttta	tttttggctct	60
tgagtctaata	atgctcgcag	ctcttgagtt	gtatatggtc	gttggtcgcg	tattttctgt	120
tgtattaaaa	gatcaaacga	gatcaaggga	tggctcgcg	gctgtctctc	gcactaggag	180
gaagaatgcc	tgaaaaagga	actttgattt	tagctgtgga	atagagatgg	cttgtttgag	240
gacgcttgct	gcttggcgca	gggacttgaa	tggcagcttg	tgaaaaccga	aggcgagaaa	300
agtcgacgga	tactgtacgt	ggttctattg	ccagtgcggt	ggaagcttgg	ttgtgatata	360
gttcaatcct	tctttgaatc	tgtttgtttc	atatttggat	tctctgcttg	cgcattctca	420
tcttcgagaa	gcgactgcag	ggattgttgg	ttctgtggag	ctgatgagcg	cgccttgacc	480
acccttgttc	ttgttttgct	cttttgttct	catttaaccc	gtttctccct	tccaaccctt	540
tgaccttgca	acattgtctc	ccagcgcggt	gccaaagcga	acttgatata	agtatagtat	600
gaccaagtag	tctaccaaaa	taaatttttag	tacagtattg	ctagtataca		650

<210> 28

<211> 412

<212> DNA

<213> *Homo sapiens*

<400> 28

ccaagccctg	cgtccagcga	gcgtcacagc	acaacctgca	aaaacggagc	tgggctgcag	60
ctggggctgg	catggacttt	catttcagag	attcgggtttt	taagaagatg	catgcctagc	120
gtgttctttt	ttttttccaa	tgatttgtaa	tatacatttt	atgactggaa	acttttttgt	180
acaacactcc	aataaacatt	ttgatttttag	gttctgcctc	tgagtttatt	cctgagggga	240
agctcgagcc	gggcctctgc	cctaatagaag	cggatgtcta	agaaagatcc	ctccaccccc	300
aaggaaaaag	gtcactggct	agtgtagcta	gtgtaaacag	gaccagggcg	atgcatggga	360
ccctgccctt	ttttttctag	tgagcctccg	acgctgttgc	acaagctgac	tc	412

<210> 29

<211> 308

<212> DNA

<213> *Homo sapiens*

<400> 29

gaagcctgca	cgcggcagtt	ctttgttaaa	gatctgaggg	actcgtcagt	cctagcgtcg	60
ccgcctgcag	cctcttccaa	gccctgcgtc	cagcgagcgt	cacagcacia	cctgcaaaaa	120
cggagctggg	ctgcagctgg	ggctggcatg	gactttcatt	tcagagattc	ggtttttaag	180
aagatgcatg	cctagcgtgt	tctttttttt	ttccaatgat	ttgtaataata	cattttatga	240
ctggaaactt	ttttgtacaa	cactccaata	aacattttga	tttttaggttc	tgccctctgag	300
tttattcc						308

<210> 30

<211> 363

<212> DNA

<213> *Homo sapiens*

<400> 30
ctagccatgg ccactgagcc ctctgctgcc ctgccagaat ctgccgcccc tccatcttct 60
acctctgaat ggccaccctt agaccctgtg atccatcctc tctcctagct gagtaaattcc 120
gggtctctag gatgccagag gcagcgcaca caagctggga aatcctcagg gctcctacca 180
gcaggactgc ctctgctgcc cacctcccgc tcttggcct gtccccagat tcttccctg 240
gttgacttga ctcatgcttg tttcactttc acatggaatt tcccagttat gaaattaata 300
aaaatcaatg gtttccacat ctctcagtgc ctctatctgg aggccaggta gggctggcct 360
tgg 363

<210> 31
<211> 341
<212> DNA
<213> Homo sapiens

<400> 31
tggctgttaa ttcttcagtc atggcattcg cagtgccag tgatggcatt actctgcact 60
atagccattt gcccacactt aagtttagaa attacaagtt tcagtaatag ctgaacctgt 120
tcaaaatggt aataaagggt tcgttgcatg gtagcact tgggtgtttg tcatgaaatt 180
ctctagtgat gtgtgggtac gcttaaaact ggtgaaaatg tttagggt taattttgag 240
attggtaatg tgctcaaagt taagtcactt gactttggta tacacttggg tgggctgagg 300
ggcaagagcc ttctttgctg ttttaagtcac tacaagttag g 341

<210> 32
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 32
cctagggtgaa gaagagtgac tgaattttg 29

<210> 33
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 33
ggtaccgtaa attttgtgag ttaggttg 28

<210> 34
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 34
cctaggatta atggatgcct tcaatgag 28

<210> 35
<211> 29

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 35
 ggtacctaga atgtgttttag ggatagttg 29

 <210> 36
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 36
 actagttagc tttattggat gactttatgg 30

 <210> 37
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 37
 ggtaccaagt gaagattttg attataccag 30

 <210> 38
 <211> 29
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 38
 cctaggaatt gcgtccaaag aagaagttg 29

 <210> 39
 <211> 29
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 39
 ggtaccatat tacgttgacg ggagttttc 29

 <210> 40
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR Primer

 <400> 40
 cctaggagtc cactcttcac ctcgctcttg 29

 <210> 41
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 41
 ggtacctttt cccttttggg agtcac 26

 <210> 42
 <211> 28
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 42
 cctaggtaag tgtcattccg tctacaag 28

 <210> 43
 <211> 28
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 43
 ggtacctaca catgtcatcg cagtggac 28

 <210> 44
 <211> 29
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 44
 cctaggatgat atagtatatc atccttacg 29

 <210> 45
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> PCR Primer

<400> 45

ggtaccctta ggtgatatcg agc

23

<210> 46

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 46

cctaggtgat gcttacgttt cttctgacg

29

<210> 47

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 47

ggtaccgtgg cagttacttt atatagagtg

30

<210> 48

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 48

cctaggagtt tgtagcctta gacatgac

28

<210> 49

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 49

ggtaccggta attaacgaca ccctagagg

29

<210> 50

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 50 cctaggctcta aagagtagca attctgatg	29
<210> 51 <211> 31 <212> DNA <213> Artificial Sequence	
<220> <223> PCR Primer	
<400> 51 ggtaccactt tgacggaaca gaggatggaa g	31
<210> 52 <211> 26 <212> DNA <213> Artificial Sequence	
<220> <223> PCR Primer	
<400> 52 cctaggactg ttgcgtagac atgagc	26
<210> 53 <211> 25 <212> DNA <213> Artificial Sequence	
<220> <223> PCR Primer	
<400> 53 ggtaccagtg cattccatgg attcg	25
<210> 54 <211> 27 <212> DNA <213> Artificial Sequence	
<220> <223> PCR Primer	
<400> 54 cctaggatcg tccaccgcaa gtgcttc	27
<210> 55 <211> 27 <212> DNA <213> Artificial Sequence	
<220> <223> PCR Primer	
<400> 55 ggtacctgta tactagcaat actgtac	27

<210> 56
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 56
 ggcgcgcccta gggaagcctg cacgcggcag ttc 33

 <210> 57
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 57
 cggggtaccc cggaataaac tcagaggcag aac 33

 <210> 58
 <211> 34
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 58
 ggcgcgcccta ggctagccat ggccactgag ccct 34

 <210> 59
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 59
 cggggtaccc cgccaaggcc agccctacct ggc 33

 <210> 60
 <211> 37
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 60
 ggcgcgcccta ggtggctgtt aattcttcag tcatggc 37

 <210> 61

<211> 37
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 61
 cggggtaccc cgcctaactt gtaatgactt aaacagc 37

 <210> 62
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 62
 aattctatgt atgtgtgtgt ttgtgtgtgt gtg 33

 <210> 63
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 63
 aattcacaca cacacaaaca cacacataca tag 33

 <210> 64
 <211> 38
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 64
 agcttaataa ataaatattt ctctatcttt aaaggcac 38

 <210> 65
 <211> 39
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR Primer

 <400> 65
 tcgagtcgct ttaaagatag agaaatattt atttattaa 39

 <210> 66
 <211> 6953
 <212> DNA

<213> Homo sapiens

<400> 66

gttaacagtc	aggcgcatgg	gccatggagc	ctcctgggtg	tcagatccca	gttcagcccc	60
tgcttgccaa	gagcccttgg	cctctgtgaa	ccctgggtctc	ttcttgtgta	tcctggggac	120
catcacccctg	gataagcctg	cgctgggctg	gaaggactga	acgcccaggg	cattgaaggg	180
gctttgtggt	aggggccact	ggctggccca	cgctccctgga	accagaggtg	accctgatgg	240
ggccattgtt	attgggggtcc	tcaggtgtgg	gcagctgggtg	acgggggtgg	cccacagccc	300
cccctcgacg	ctggtgtgga	agggccagag	cagctggggc	acgggcgaga	cttcgcgacc	360
gtcctgggta	acgcggtgg	cgaggtgggt	gtgtgtggct	tgggggtg	tcggctggag	420
tcctgggcag	ggctgtggca	ccctcggggc	cgccacagca	gctctggg	gatcccgga	480
catgccgccc	tgtcctgtcc	cgcacaggaa	gtggccatga	ggactgtgaa	gaagtcctcg	540
gtgatgcgtg	agaatgagaa	tggggaggaa	gaggaggagg	aagccgagtt	tggcgaggag	600
gatcttttcc	accaacaggt	aggaccctg	tgccacttg	cggctggggg	gcagcctctg	660
gggcagagtg	agctcgtgca	cacacataca	catgcgtgct	ggccgcatcc	ccgacgggag	720
ctccatctgg	ctgccgtggc	tcagggtgaa	gccagccttg	ctgttaccag	cacggcagag	780
acctgttctt	tcctcctggg	tcgtgccc	cggtggaatt	tgcgacatca	cagacctcag	840
ggtagctggc	cagggggatc	cctgagaggt	gggtgttgaa	cagctcccaa	atgctctctc	900
ctcaaccggc	ttcctcagtc	gaagaagcag	cagtcctctc	actgctctgg	gagaagatga	960
gtcagaaacc	acagctgcat	taaaccgctg	cgtcgcaagt	tcctgtgact	gttttggaa	1020
ccagaacaga	atgtgtgact	cacaggcg	ctcatgggga	catggaagtg	gaatggaa	1080
ctctagaaat	agacactgtt	gttgctcagc	ccctccctgg	tggggagggtg	ggggcagcca	1140
tctacctgcc	ggctgcctcc	aggctggccc	tcatcatggc	cgaccttctc	tccttccttc	1200
ctgaaggggg	acccgaggac	cacctcaaga	ggctgctacg	tgatgtgaac	ccacactcct	1260
catccacaca	cctttcttta	cccagagcca	ctgaaaacta	ttttttatca	ttggctttct	1320
ttagttcttg	atacatttct	agagaatttc	taagcgaact	gccagaacgt	gtgggtgggt	1380
ctcccccagc	cctccctcct	ggcgggtctc	ctccagcctc	acttcgctgc	cacttcgccc	1440
ctgccccgga	gacttttcaa	tcacacccca	ctcctcatct	caccatttgg	tcaaatttga	1500
agcccagggc	caggaccggg	aggttttaga	gatgcttggg	cttggaggga	ggagggccgg	1560
cgaggctagc	gaggggacag	gagacggccc	tgctgcggac	ggagcgcgga	aactgcgtag	1620
gaattcagtg	gtggtgggtt	tttttaaggc	tttctacaaa	accaaattca	gaatccaggc	1680
gtcgacctgg	tggggcccgg	ggcaagcctg	cattctggct	gcccagcttc	ggacagcggg	1740
aactcctcag	gcagccacgc	agcgggtgtg	ggccagcatg	gggatggcgt	ggccccaggg	1800
gggttttcac	tccgctgcct	gggttccag	attcccgttc	tggcagcgac	cggccgggtt	1860
tctcgaccg	ttgactttat	ttgggggagt	tttcccgag	ttcagttcct	gactgtgcaa	1920
ggccaacagg	gcaggggagg	ggaagacctg	gggaaggaa	aatgaggaca	cagtcccgct	1980
gtaagacctg	tcacaacaat	aagcagggtg	gggagatgtg	gaggggacac	atctggttgc	2040
cttggaggca	gaagctgtga	gtttcagaac	agctgtctgc	agggaaacgc	accatgttga	2100
ccctctggag	gagagcgctg	tggagccctc	cccgtgttcc	agctccgtct	gccctgtgcc	2160
tatatatcac	atgcgtctat	catactgtgt	ctttatctgt	gatttttctc	gctgaaacat	2220
gtttctcaga	cagccaaggc	cacctgactc	ctatcacgac	gcaccaagc	ccctcagtc	2280
agcttcccaa	tgcttggcac	ccccttcggc	aatagctcac	cgtttacacc	ctccctcata	2340
gatacacaga	agttattttt	ttaatggata	tttatttttt	tacattggct	agtacacagg	2400
tcagggagct	cacgccaggg	ccttgaggac	aggctgaccc	tcctccccgg	ggtggcgtgg	2460
ggctggggca	cccccgacgg	cagagcctcc	ttcagaaagt	gcagctcaag	tcttaaagac	2520
acaaaaactg	agccatgggc	acgcgccgtc	tccggggccat	ggcgttact	gcagggcg	2580
ggcggcacccg	ctccccctgtg	actgcatccc	gcctccctgg	ggacctgcct	gtggcaggaa	2640
ggaatggggg	gccccagccc	aggccgggaa	ggagccagcg	gccgacaaag	cagaaacacc	2700
gctgctccac	gtagcccctg	ctggctgtcc	ttgctctcag	aagtcccgg	cccatgtaga	2760
tagagcccgg	cggatcttac	caaagcattt	cctcctggag	gctacgccgc	ttggtgctcc	2820
cagttagggc	gctggtaggg	agctttgcct	gccccgggga	taccctctac	cagccgctgg	2880
aagtgggaat	gctggcgaca	gactgtgtct	gtttccacc	ttcatagcag	gaatcacc	2940
gaccgactg	gctgggcttc	gtgctagcga	gggtttctc	gggtgggtc	ttggtgatct	3000
tgtcctatgg	ggtatcctgc	agtggctctc	gccacatcct	agtatatatt	ggctctggag	3060
gagcaaaagt	gtatcctgga	gttggctctg	gatttgcga	cagacttgca	ggctgggctc	3120
agcaaaagtcc	cccccaaac	ccgcaggtcc	tcattgtccag	acgctgccag	tcctgtcctg	3180
aaaacagcac	gccccaggcc	cacagaaccc	cccaccctac	atttgccttg	ggtggagctg	3240

ggggtggtcc	taggactgcg	ggtgccctta	gctgaagggg	gcccgcagaa	gcgtgagctg	3300
ggccgcctgt	gggtcatttg	aggttcattg	agaattgagt	ccttttgaaa	gactaagaaa	3360
atcaaatttt	taaaagtatt	ttatggcctg	ggaaacaatt	tgcatttgct	cccaaatacg	3420
cttagctgtg	tgccgcttag	aacgatgaga	aaccatccct	ctgtgtaagc	ccgtgccgtg	3480
tgactcgaag	cctagcgccc	tccctgcgaa	gcatcagacg	ccaccagacc	ctgggggagg	3540
cccacgcctg	ctggaccaac	gcgggttctg	gggtgcacag	cgccagggtta	acgctgaagc	3600
ctgccccgct	gagcccaaga	gccgggaggc	ctgccccgctg	acccagaatc	cgatcatgca	3660
cctgtcctca	tgccagcggc	tttggctggg	gttggctctga	agcctgcacg	cggcagttct	3720
ttgttaaaga	tctgagggac	tcgtcagtc	tagcgtcgcc	gcctgcagcc	tcttccaagc	3780
cctgcgtcca	gcgagcgtca	cagcacaacc	tgcaaaaacg	gagctgggct	gcagctgggg	3840
ctggcatgga	ctttcatttc	agagattcgg	tttttaagaa	gatgcatgcc	tagcgtgttc	3900
tttttttttt	ccaatgattt	gtaatataca	ttttatgact	ggaaactttt	ttgtacaaca	3960
ctccaataaa	cattttgatt	ttaggttctg	cctctgagtt	tattcctgag	gggaagctcg	4020
agccgggctt	ctgcccta	gaagcggatg	tctaagaaag	atccctccac	cccccaaggaa	4080
aaaggtcact	ggctagtgt	gctagtgtaa	acaggaccca	ggcgatgcat	gggaccctgc	4140
cctttttttt	ctagttagcc	tccgacgctg	ttgcacaagc	tgactcttcg	tcacgtgatg	4200
cgaccggctc	cgccccggcg	gcaacacgct	gtatagacgc	gccgggtgcc	tcgtgcgc	4260
gcgcggcgct	cccttcggga	cgagctggag	gcagagcgtg	agtacaaaag	gatcggcctc	4320
ggccgacgca	gtagcccccc	tactccccgg	ccaagtcagg	gcctccctct	tcccgcgag	4380
tcgcaaccac	gggtagctcg	tgtaggtaac	ggcaggtcca	ggcctccgca	tgagcggagg	4440
gccccccgca	cgacctgaa	tgccccgggtg	gcgcgcgcgg	tcgtgtggga	gttgtagtcc	4500
tccgtccccg	tccgcgcgga	ctccgtttcc	cgtggtgccc	cgggcggccc	gcttccggcg	4560
cagttagtta	cgagtccggc	cacgcggcct	cggtcgggtt	gactttgcgg	agccatggag	4620
ggcggcttcg	gctccgattt	cgggggctcc	ggcagcggga	agctggaccc	agggctcata	4680
atggagcagg	tgaaagtgca	gatcgccgtg	gccaacgcgc	aggagctgct	gcaggtgcgg	4740
ggctggccgg	ggacggggcg	tgggggcgac	agggccaccc	ctagggggccg	acgtcgcggc	4800
taagcctcgc	gtgtctccac	agaggatgac	ggacaagtgt	ttccggaagt	gtatagggaa	4860
acctaggggc	tccctagaca	actccgagca	ggtgagaccc	gcggaagggt	cggggcaagg	4920
gtcgcgaggg	cctagattcg	ggggggagggt	gtctgcgcgt	gcgagacaac	ggggaggtgc	4980
gacggagtgg	tactgcacg	tgcgtagtct	gcagcccggg	cgtcctggag	ccgggggttag	5040
ggcggctccc	ggggccgcga	agtcccagac	tgagccgtgc	gcccctccgc	tcccgagaa	5100
gtgcatcgcc	atgtgcatgg	accgctacat	ggacgcctgg	aacaccgtgt	ctcgcgccta	5160
caactcgcgg	ctgcagcggg	aacgagccaa	catgtgaccg	gcgagcgcgg	gccacccac	5220
cctgtcattt	ccataaacgg	tttgagaggc	gggtgccgat	gtacgtactg	cctgcccggg	5280
gctaggaggg	tggcaccggt	gctgggacac	acgggactgt	gtcctcgcca	ccccccgccc	5340
tgccccctgc	cagccagtgc	agcttggatg	tcgggggtgt	ggggccctgt	gcttcctgaa	5400
gtgctggcag	ccagtggca	cctccttcag	gcctttgggg	tattccccta	gtgtgcccaa	5460
gtcagctcca	tattctgggc	ggacagcttg	tctggacttc	ggagtggggg	gtggtcagac	5520
accacaggag	ctgtcacctc	ctgcggatgg	gcaaataaat	tggtggagga	cggagagaaa	5580
cctctttatt	tctccttgt	ccctggaacc	ccagctcgga	gggtctcagc	ctcccctggg	5640
ttgggagaag	tcatctttcc	ccttagtgcc	gccgggctgc	tgagtcacga	ggaatgtgtt	5700
gctgctgcca	cccctgcccc	aaaggctaag	ggggacagcc	ttccccttgt	cagggcttgc	5760
tttgaccctg	cttcgttcca	ccccgggtcc	tggtggagcc	accaggcagg	tggtcctcgc	5820
tgtgacactg	agggtgctgag	ccagtgagct	agggtggagg	ggctgtgttt	ggaacaaagg	5880
gtggtaccaa	aatgcatccc	catgaccac	agcccccca	caccctgcct	tgggtagggt	5940
acggtggggg	ggggtgttgg	gtggcctgct	gctcctgttg	ctttcacgta	gagtctcggc	6000
ctgggcagtc	acgtggtggt	cactcctgga	tgtgctgtcc	tatccagcct	ctcacagctg	6060
ccaccggggt	atagacacct	gggaagtggg	gccggccaca	gccatagccc	cagctagtga	6120
ccccagttag	caccacccgt	ccagagggct	ccctgcaacc	aggggtcccc	cagcgtcacc	6180
ctgttgggga	gagaagaaaag	ggggttcaga	ggccggtacc	tcccctacag	cagcccttgg	6240
gtcattggcc	cctctaggag	tgaccctagt	gacttcccct	ggagccgcat	tttactatc	6300
tggaaaatgg	gctcaatcaa	aggtggcaga	catttatgga	caccgcgtac	gtggtcccgg	6360
agtgaacggt	tacctccac	tgagcctct	gcctgctctg	ccgccgaggc	ccggggatgg	6420
gatgcgggtg	gttgcccaat	aaacggctgt	ggagtggaaa	ttcctccgga	gccaaaaagg	6480
ctccctgctt	gatccgtgg	agaagcctgc	accggagggt	ggctcccgga	tggtgggctt	6540
cgtgggcagc	ggaacccgcc	ctccccggcg	gctgggcggg	acctggtccc	ctgggcgggg	6600
gcggggctca	ccgagcagct	gtccacgccc	cctgcgggaa	gccggcacac	agcatgcggc	6660

tgctgatctg	cactgggtag	aagcggcggc	aggtctgctc	gctgaggagg	cgcacggccg	6720
ccttctgcag	ctgccgcgcc	atggagcctg	cgggcggcga	gcgagacggg	gcgggtgggg	6780
accgcgtccc	ggccgcccc	cgagtccccc	caccaccgcg	gtccccgggc	gcgcctacct	6840
ccttcgtcgc	accgagcccc	agccggtgat	gacgcagcgg	tgccgtccgg	gggtcgcggc	6900
gcggctaggg	caggcagatg	ggacgcacca	ggcggctgcg	acgaccgtac	ccc	6953

<210> 67

<211> 3311

<212> DNA

<213> Homo sapiens

<400> 67

ggatccttcc	accttgccta	ccaaagtggg	gatgaaagtt	tgtctggggc	attgcagttt	60
tagacaggaa	gaccagggaa	ggcctcactg	agaaggtgac	at ttgagcca	agacttaaaa	120
aggtacgaaa	gtgagccatg	tggaaagtctt	ggggggagga	gtgaactagg	cagaggcaca	180
gctgggcaaa	gggctgagg	tgtgacctg	cctatggatt	tgaggaactt	caaagaggct	240
gtgtgctgca	ggagagtga	gggcagggag	tggcaggaaa	tgaaggcaga	caggtagcag	300
tggggaggac	gcaggggtcc	agctcatgta	ggtcttgatt	ggacacagtg	agtttcagat	360
gacagcctcc	tgtctcatgg	ggtagcccca	aagccacagg	agtctggtga	ttccctctt	420
ccccaccaga	catctatgcc	atcgggggtg	gcaagctgga	tgtggactgg	agagaactga	480
atgagctagg	gtccaagaag	gatggtgaga	ggcatgcctt	cattctgcag	gacacaaagg	540
ctctgcacca	ggtctttgaa	catatgctgg	gtgagtgagc	tttgccctcc	ttggtgtggg	600
gaggatgggtg	aggagcccg	caaaggcccg	ttttgggaac	ctggacacag	tgccctcac	660
ttgcctcctt	ccccatctga	tcctcacacc	cacagatgtc	tccaagctca	cagacaccat	720
ctgcgggggtg	gggaacatgt	cagcaaacgc	ctctgaccag	gagaggacac	cctggcatgt	780
cactattaag	gtaccaggaa	ggaggggcag	ggcttgatt	ccagaggtaa	aagcggccat	840
gggccagaca	tactgcaatc	tctgaaaatc	acctgttccc	ctgcagccca	agagccaaga	900
gacctgccc	ggggccctca	tctccgacca	atgggtcctg	acagcagctc	attgcttccg	960
cgatggcaac	gaccactccc	tgtggaggg	caatgtgggt	aaggcagggg	atgcaccagc	1020
ctcctgatcc	gtgaagccac	agatcctacc	acctcaccca	gcctctggcc	cctgcaggag	1080
ccctggtcta	gcctaatacta	gtgtatcatt	tccaggagac	cccaaataccc	agtggggcaa	1140
agaattcctt	attgagaagg	cggtgatctc	cccagggttt	gatgtctttg	ccaaaaagaa	1200
ccagggaaatc	ctggagtctt	atgggtgatga	catagctctg	ctgaagctgg	cccagaaagt	1260
aaagatgtcc	acccatgcca	ggtgcctgga	gtcttggtatg	ggaggggtcc	ctgcagggaa	1320
gagtgtctctg	gagatccctg	gaagagacta	ctggggacag	gctggtgtga	cccttgtctt	1380
tctccccagg	cccctctgcc	ttccctgcac	gatggaggcc	aatctggctc	tgccgagacc	1440
tcaaggcagc	acctgtagg	accatggtga	gtgctgggac	ttatggtgct	tgagagctgg	1500
ggccgggggtt	tgggggtgat	aacaaggact	aggctgcagt	cccaaagcca	ggaacctgga	1560
ttctggtgtaa	aaggagcagc	accaacatcc	ccttctcttg	actatagaga	atgaactgct	1620
gaacaaacag	agtgttctctg	ctcattttgt	cgccttgaat	gggagcaaac	tgaacattaa	1680
ccttaagatg	ggagtggagg	tgagggtctc	aggttgggga	tgctgggatc	cccctgtgac	1740
agctcccaga	atgtctctct	tccttctcca	ggctctggctg	ctttctctct	ctgacgcggg	1800
tcacccctcc	tcccaagcct	cacaaacctg	ctaggtgtcc	ctgggtctgc	ttattctttt	1860
tttgttgta	ttgagatgga	gtcttctct	gtctcccagg	ctggagtga	gtggcacgac	1920
ctcagctcac	tgcaacttct	gcctcctggg	ttcaagcgat	tctcctactt	cagcctccc	1980
agtagctgag	attacagggtg	cccaccacca	caccagctaa	tttttgtatt	tttagtagag	2040
acgggacttc	gccatgttgg	ccaggatggt	cttgaactcc	tgacctcaag	tgatctgcct	2100
gcctcaacct	cccaaagtgc	tgagattaca	ggcgtgagcc	actgcacccc	acccgggtct	2160
gcttattcta	cccttctctc	tggttccacc	cctgctgcag	tggacaagct	gtgccgaggt	2220
tgtctcccaa	gaaaaaacca	tgttcccaa	cttgacagat	gtcagggagg	tggtgacaga	2280
ccagttccta	tgcatgggga	cccaggagga	tgagagtccc	tgcaagggtg	agtccctcac	2340
catgcctgga	ttcccaagg	gaaggccacc	tgtgtctctg	tgccagcat	gcatgccaga	2400
acaccagtcc	actgccctag	atgacactgt	ctcctgtcac	cctttgctgg	caggagaatc	2460
tgggggagca	gttttccctg	agcggagatt	caggtttttt	caggtgagaa	ggtagaagct	2520
tgaggaccc	aggggttaca	ggatctcagc	cttgttgggg	ggatgaggga	ggcctttgag	2580
ggatctagg	aggttggggc	ttacagttgg	ggctgtggca	gcctcccagc	cagttctctc	2640
cttttctcca	gggtgggtctg	gtgagctggg	gtctttacaa	cccctgcctt	ggctctgctg	2700

acaaaaactc	ccgcaaaagg	gcccctcgta	gcaagggtccc	gccgccacga	gacttttcaca	2760
tcaatctctt	ccgcatgcag	ccctggctga	ggcagcacct	gggggatgtc	ctgaattttt	2820
tacccctcta	gccatggcca	ctgagccctc	tgctgccctg	ccagaatctg	ccgcccctcc	2880
atcttctacc	tctgaatggc	cacccttaga	ccctgtgatc	catcctctct	cctagctgag	2940
taaatccggg	tctctaggat	gccagaggca	gcgcacacaa	gctgggaaat	cctcagggct	3000
cctaccagca	ggactgcctc	gctgccccac	ctcccgctcc	ttggcctgtc	cccagattcc	3060
ttccctgggt	gacttgactc	atgcttggtt	cacttttcaca	tggaatttcc	cagttatgaa	3120
attaataaaa	atcaatgggt	tccacatctc	tcagtgcctc	tatctggagg	ccaggtaggg	3180
ctggccttgg	gggaggggga	ggccagaatg	actccaagag	ctacaggaag	gcaggtcaga	3240
gacccactg	gacaaacagt	ggctggactc	tgcaccataa	cacacaatca	acaggggagt	3300
gagctggatc	c					3311

<210> 68

<211> 3107

<212> DNA

<213> Homo sapiens

<400> 68

ctgcagtga	cggtgatcac	accactgcac	accagcctgg	ggacacagcc	agactttgtc	60
acaaaaaagc	aaaaacaact	ggccagtgtg	tgaggggctc	gtgttttttg	tttgtctgtt	120
tgttgagaca	gagtctcact	ctgtcgccag	actggaatgc	agtggcacat	tctcggccca	180
ctgcaatctc	tgctcctag	gttcaagcaa	ttatctgcct	cagcctccca	agtagctggg	240
attacaggcg	cccgaccac	gcccggctaa	tttttttgta	tttttagtag	agacgggggt	300
tcaccacctt	ggccaggctg	gtcttgaacc	cctgacctca	tgatccaccc	gcctcggcct	360
cccaaagtgc	tgggattaca	ggcgtgagcc	tcccggcccg	ccagggggcg	gcgtttttta	420
aacatgggag	aggaattgt	gcttcacaat	caccatcagg	tgtctcgata	tcgggtgcca	480
cgccgtcccc	cttctgaggc	gcggcggccc	actttggcag	gccgaggcgg	gtggattacc	540
tgaggtcagg	agttcgagac	cagcctgaca	aacatggtga	aaccccgctc	ctactaaaaa	600
tacaaaaaat	tagccggacg	tggtggcgca	tgcctgtaat	cccagctact	tgggaggctg	660
aggcaggaga	atcgcttgaa	cccgggaggc	ggaggttgcg	atgagccgag	atcgcgccat	720
tgactccag	cctgggaaac	aagagcgaaa	tccgtctcaa	gaaaaaaaag	gaaagacccc	780
ccctccttct	cccgcgggaa	ataccctctt	tcaggacggc	gcgcctgtgc	ggcgacgcgc	840
gctcagttac	ttagcaacct	cggcgctaag	ccaccccgag	tggagcccag	caacaacaga	900
gccaccgcgt	ccccaccaa	tcagcgccga	cctcgccctc	gcaggcctaa	ccaatcagt	960
ccggcgctgc	aaggaagttt	ccagagcttt	cgaggaaggt	ttcttcaact	caaattcatc	1020
cgctgataa	ttttcttata	ttttcctaaa	gaaggaagag	aagcgcatag	aggagaaggg	1080
aaataatttt	ttaggagcct	ttcttacggc	tatgaggaat	ttggggctca	gttgaagagc	1140
ctaaaactgcc	tctcgggagg	ttgggcgcgg	cgaactactt	tcagcggcgc	acggagacgg	1200
cgtctacgtg	aggggtgata	agtgcgcgca	cactcggtgc	ataaatttgc	ctccgcccag	1260
ccggagcatt	taggggcggg	tggctttggt	gggtgagctt	gtttgtgtcc	ctgtgggtgg	1320
acgtgggttg	tgattggcag	gatcctggta	tccgctaaca	ggtactggcc	cgcagccgta	1380
acgaccttgg	gggggtgtga	gaggggggaa	tgggtgaggt	caagggtggag	gcttcttggg	1440
gttgggtggg	ccgctgaggg	gagggcgtgg	gggaggggag	ggcgaggtga	cgcggcgctg	1500
ggcctttccg	ggacagtggg	ccttggtgac	ctgagggggg	cgagggcggt	tggcgcgcg	1560
gggttgacgg	aaactaacgg	acgcctaacc	gatcggcgat	tctgtcgagt	ttacttcg	1620
gggaaggcgg	aaaagaggta	gtttgtgtgg	tttctggaag	cctttacttt	ggaatcccag	1680
tgtgagaaa	gtgccccttc	ttgtgtttca	atgggatttt	tatttcgcga	gtcttggtgg	1740
tttggttttg	ttttcagttt	gcctaacacc	gtgcttaggt	ttgaggcaga	ttggagttcg	1800
gtcgggggag	tttgaatatc	cggaacagtt	agtggggaaa	gctgtggacg	cttggttaaga	1860
gagcgctctg	gattttccgc	tggtgacgtt	gaaaccttga	atgacgaatt	tcgtattaag	1920
tgacttagcc	ttgtaaaatt	gaggggaggc	ttgcggaata	ttaacgtatt	taaggcattt	1980
tgaaggaata	gttgctaatt	ttgaagaata	ttaggtgtaa	aagcaagaaa	tacaatgatc	2040
ctgaggtgac	acgcttatgt	tttactttta	aactaggtca	aaatgcagat	cttcgtgaaa	2100
acccttaccg	gcaagaccat	cacccttgag	gtggagccca	gtgacaccat	cgaaaatgtg	2160
aaggccaaga	tccaggataa	ggaaggcatt	cccccgacc	agcagaggct	catctttgca	2220
ggcaagcagc	tggaaagatg	ccgtactctt	tctgactaca	acatccagaa	ggagtcgacc	2280
ctgcacctgg	tctgcgtct	gagaggtggg	atgcagatct	tcgtgaagac	cctgaccggc	2340

aagaccatca	ccctggaagt	ggagcccagt	gacaccatcg	aaaatgtgaa	ggccaagatc	2400
caggataaag	aaggcatccc	tcccgaccag	cagaggctca	tctttgcagg	caagcagctg	2460
gaagatggcc	gcactctttc	tgactacaac	atccagaagg	agtcgaccct	gcacctgggc	2520
ctgcgtctga	gaggtggtat	gcagatcttc	gtgaagaccc	tgaccggcaa	gaccatcact	2580
ctggaagtgg	agcccagtga	caccatcgaa	aatgtgaagg	ccaagatcca	agataaagaa	2640
ggcatccctc	ccgaccagca	gaggctcatc	tttgcaggca	agcagctgga	agatggccgc	2700
actctttctg	actacaacat	ccagaaggag	tcgaccctgc	acctggctct	gcgcctgagg	2760
ggtggctggt	aattcttcag	tcatggcatt	cgcagtgcgc	agtgatggca	ttactctgca	2820
ctatagccat	ttgccccaac	ttaagtttag	aaattacaag	tttcagtaat	agctgaacct	2880
gttcaaaatg	ttaataaagg	tttcgttgca	tggtagcata	cttgggtgtt	tgtcatgaaa	2940
ttctctagt	atgtgtgggt	acgcttaaaa	ctggtgaaaa	tgtttaggga	tttaattttg	3000
agattggtaa	tgtgctcaaa	gttaagtcac	ttgactttgg	tatacacttg	ggtgggctga	3060
ggggcaagag	ccttctttgc	tgtttaagtc	attacaagtt	aggatcc		3107

<210> 69

<211> 2878

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 69

tacatcccgt	tcacatagct	ccttcctggg	acttgagtaa	gtctttttaa	acaattcaac	60
atctactttg	tatcaggcgc	ttggattttac	acttttggca	tatttattcc	tacgctgcat	120
ttgctattag	ccgcggaaag	gaagtacaat	aacgtttttac	gtcgattcgt	gtttgtatta	180
cccagcacct	ttttcttctt	gaagatgtat	cgaccctgtc	ccccgctgta	gtagccccgc	240
gcactttgtg	tgtgcagcaa	cttcaggctt	gctccgtgaa	ctcacaacgt	cggccgtcgt	300
gcttgctcgc	tcgtcgcgaa	gtattttaaac	aaagcgggtt	tttcttgtcc	cttaattaag	360
cctactgggt	cgctccttcc	caaataattt	gattttttct	cccttgccac	agtaaacaag	420
ctaaaaggcg	gtcgaatctc	aacggctctg	ataaacgtac	gtaatgaccg	atatcacacc	480
cgtacagaac	gatgtggatg	tcaatggtaa	taatgtcaat	gacgacgttt	ccagtaatct	540
aaagaggcct	atagatcaag	gggatccttc	gaatggactc	gcagaagaag	aaaacccccg	600
caataaccag	ttgcatctca	aaaaggctag	actggatgga	gatgctctaa	catcatcgcc	660
tgctggactt	gcagagaacg	gtattgaagg	cgccaccctg	gcggctaacg	gggaaaatgg	720
gtataacgcc	accggaagtc	gagaagacga	acagcagggg	ttgaagaagg	aagaaggagg	780
acaaggatcc	aaacaagagg	athtagatga	aaactcaaaa	caagaacttc	cgatggagggt	840
tccaaaggaa	cctgcccctg	ctcctcctcc	agagcccgat	atgaataatc	tccctcagaa	900
tccaatacca	aagcaccagc	agaaacatgc	attgcttgcg	attaaagctg	tcaaacgctt	960
gaaggatgcg	agaccctttc	tacaacctgt	tgaccacgtg	aaattggata	ttccctttta	1020
ctttaactac	ataaagaggc	caatggactt	gtctactata	gagagggaagt	tgaacgtagg	1080
cgcttatgaa	gttcgcggagc	aaatcacgga	ggattttcaat	ctcatgggta	acaacagtat	1140
taaattcaac	ggtccaaatg	cgggcataatc	acaaatggca	agaaacatac	aagcttcttt	1200
cgagaaacat	atgctaataa	tgctgtctaa	ggatgtctca	cctgtaatat	ccaagggacg	1260
gcggtctagt	gcccagaggg	atgcccacat	tgtaattaga	cgagcccaaa	ctcataatgg	1320
gaggccgaaa	aggactatac	atccgccgaa	atcaaaggat	atztatcctt	atgaatcgaa	1380
gaaaccgaaa	tccaaaagac	tacaacaagc	aatgaaattt	tgtcagagt	tgctaaagga	1440
attgatggcc	aagaagcacg	cctcttataa	ctaccatttt	ttggaaccag	tagaccaggt	1500
ttctatgaat	ttgccgactt	atttcgatta	tgttaaagag	ccaatggatt	taggcacaat	1560
cgccaagaaa	ttaaattgact	ggcagtatca	aacaatggag	gattttgaga	gagacgtgag	1620
gttggctctt	aaaaactgct	acacgttcaa	tccggatggc	acgatcgtta	atatgatggg	1680
tcatcgtcta	gaggaagttt	tcaattccaa	atgggaggat	aggcctaatt	tggatgacta	1740
cgattccgat	gaagattcga	ggacccaagg	cgactacgac	gattatgaat	ctgagtattc	1800
agagtctgac	atcgatgaaa	ctataattac	aaatccagcc	atccagtatt	tggagaagaa	1860
acttgctcgg	atgaaagtgg	agttgcaaca	attaaaaaag	caagaactgg	aaaaaataag	1920
aaaagagagg	cgcttagcac	gtggatcaaa	gaaacgcggc	aaaagatcga	agggaaggag	1980
tgggtctaag	aacgcttctt	cgaaaggaag	gcgagataaa	aagaataaat	tgaaaacagt	2040
agtacataat	gatatgaac	gtatcattac	agagaggatc	aatgattttac	caacttccaa	2100
attagaanaa	gcaatcgaca	taataaaaaa	atccatgcc	aatatttctg	aagacgatga	2160
agtagaactt	gacctcgaca	ctttagataa	tcacaccatc	ttaacattgt	acaacacttt	2220

ctttagacaa	tatgaaagct	catccggtgc	ttctaacggt	ttggacggtg	cttcaggtgt	2280
tacgcgagat	gcttcgtcct	tgtcgcctac	aagtgcggga	agcagaaaaga	gaagatctaa	2340
ggcattaagc	caagaggagc	agagtaggca	gatagaaaag	ataaaaaata	aactagctat	2400
cttagacagt	gcttcacctc	tgagccaaaa	cggctcccca	ggccaaattc	aaagcgctgc	2460
acacaacggg	ttttcctcat	cttcagatga	cgatgttagc	agcgaaagtg	aagaagagtg	2520
actgaatttt	gaatttgatt	atcttcaacg	actgagaaga	atgagcacca	ttttgatatt	2580
ttgattaatt	aagtggtaat	cttaagctca	tatacaaaaa	gggaaggaaa	aaaaataaag	2640
atagaaaaga	tcttaggaac	ggatagaggt	ttgaaaaagg	aataacaggt	aatttttcat	2700
tttcatatcg	gttgtaacat	tataaagctc	acaaatttaa	aacaaaaaaa	aacataaacc	2760
taacaaggtt	aatcatttgc	acatgatctc	atcatataga	tcaattcata	atctatataa	2820
taatgaataa	ttataataaa	aatttcctct	tgtctcagaa	cgcccatcgg	atggcata	2878

<210> 70

<211> 3379

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 70

taacgagcaa	ttcagacttt	cttccaataa	tgcttaacat	gattgcccga	gacaaatctt	60
caacaaccgc	gtatcaaatt	ctgtgtcgaa	gaagaggtcc	tccaattcag	aattttcaaa	120
tttttttcctt	accggctgta	acgtacaata	agtagcatgc	ataaaatata	atttaaatcaa	180
atacttttgg	gcaattaaaa	ttttagttaa	caatagtatt	gcaatgcgct	ttatgttcat	240
atgataccgt	ttataagcta	ttgccatatt	cttatcttat	tgcttccagt	agcctcgagt	300
cgaccactaa	aaagatgtca	cttaagacgg	aaattatgta	gctgcacttc	ttttttaaca	360
agttcggctc	gcccttcaag	ttctcctttc	taaagcctca	ttattttattg	cgtagatgct	420
aaatgttatc	gcggttttagc	ttgcatgtta	cgtttccggt	ttagaacctg	gtcgagtagc	480
gaataatgtc	ttcagttgat	gtactgttaa	cagtaggtaa	gttggatgcc	tcattggcgt	540
tactgactac	tcaggatcat	catgttattg	agtttcctac	agtattatta	ccagaaaatg	600
ttaaagctgg	atctatcata	aaaatgcaag	tttcacaaaa	tttagaggag	gaaaaaaaaac	660
aaaggaatca	ttttaagagt	atacaagcca	aaattttgga	gaagtatggt	accataaac	720
cggagagccc	agttttgaaa	attgttaacg	ttacgcaaac	gagctgtgtt	ctagcatggg	780
atccattgaa	acttgggtca	gcaaaattga	aatcactgat	cctttatagg	aagggaatac	840
gttcaatggt	aattccaaat	ccattcaaag	tgactaccac	gaaaatatcc	ggtctttccg	900
ttgatacgcc	atacgaattt	caattgaaac	tgataaccac	gtcaggaaca	ttatggctctg	960
aaaaggttat	attgctgaca	cataagatga	ctgacatgtc	tggtatcact	gtatgtttgg	1020
gtccattgga	tccattgaaa	gaaatttcag	acttacagat	atcccaatgt	ttgtctcaca	1080
tcggggcgag	acctttacaa	cgatcatgtt	cgatagatac	tacgcatttt	gtctgtaacg	1140
atctagacaa	tgaagaaagc	aatgaagagc	ttataagggc	aaaacataac	aacataccaa	1200
ttgtcagacc	ggaatgggtg	agagcttgtg	agggttgaaa	aagaatcggt	ggtgttagag	1260
gattttactt	agatgcagat	caaagtatac	tgaaaaacta	cacattccca	ccagttaatg	1320
aggaagaact	ttcgtactca	aaggagaatg	agccggtagc	cgaagttagc	gatgaaaata	1380
agatgcccga	ggacacaaca	gatgtcgaac	agggtgcatc	acctaataac	aatgagagta	1440
atccttcaga	agctaaggaa	caaggagaaa	agagtggaca	tgaaactgcc	ccagtaagtc	1500
ctgtagaaga	tccattgcat	gcttcgacgg	ctttggagaa	tgaaaccacc	atcgaaaccg	1560
tcaacccttc	cgtaagaagt	ttgaaaagcg	aacctgttgg	tactcccaat	atagaggaaa	1620
acaaagcgga	ctcttccgca	gaagccgtgg	tagaagaacc	gaatgaagct	gtggctgaaa	1680
gttctccaaa	tgaagaagca	acgggacaga	aaagtgagga	taccgatata	cattctaacg	1740
aacaagctga	taatggattt	gtacagactg	aagaagtagc	tgaaaacaac	ataaccacag	1800
aaagtgcagg	ggaaaataac	gaacctgcag	atgatgcagc	aatggaattt	ggacgtccag	1860
aagctgaaat	tgaaactcca	gaagtaaatg	agtctataga	agatgccaat	gaacctgcgg	1920
aggattccaa	tgaacctgtg	gaggattcca	acaaacctgt	gaaggattcc	aacaaacctg	1980
tggaggattc	caacaaacct	gtggaggatt	ccaacaaacc	tgtggaggat	tccaacaaac	2040
ctgtggagga	tgccaatgaa	cctgtggaag	ataccagtga	acctgtggag	gatgccggtg	2100
aaccctgaca	agaaaccaac	gagtttacta	ccgacattgc	ctctccaaga	catcaagaag	2160
aagatataga	acttgaagcc	gaacctaaag	atgctaccga	aagtgttgca	gtcgagccat	2220
ccaatgaaga	tgtaaaacca	gaagaaaaag	gttcagaggc	agaagacgat	atcaacaacg	2280
tttccaagga	ggctgcctct	ggtgagagta	ctaccaccca	aaaaactgag	gcctctgctt	2340

ctcttgaaag	cagtgccgtc	acggaagaac	aagagacaac	ggaagccgaa	gtaaatacag	2400
atgacgtttt	gtccactaaa	gaagctaaaa	aaaatactgg	caacagcaac	agtaataaga	2460
agaagaataa	gaagaataag	aagaaagggg	aaaagaaatg	attaatggat	gccttcaatg	2520
agttccacga	cgcacgttta	ttttttcgac	tgagaatccc	tcagcaaata	taatctatct	2580
tttatatata	tgtgtatatg	taagcatgta	taactagtta	caaatatgat	aactgctttg	2640
gcgatcactt	catttttctt	agaggggtac	tcagtagccg	ccaagcacga	aatgtccgtt	2700
attaaaaatt	ggggagtga	tcttaaaagc	ccgaaaagga	aattcaaaat	ctgtctatct	2760
ataggccgtc	gcgctctacg	aaaacgcgaa	attattcaaa	cggaaaacgg	aaaaaaatct	2820
aaaaaaagaa	attaattgag	agatctcacg	gaaatgccgc	gaggaatgtt	tctcgaggct	2880
gagcggcgtg	gtctgtgcaa	aaaaatggca	atTTTTTgt	aggagtgtgc	attgggccat	2940
tcagaaggag	caccgttaga	tgggatggta	aatgaatttg	ctgtttcaga	tttgaatcaa	3000
tctttacccg	ttatttttgc	cgTTTTgtt	tcataatctg	caaattaaca	aagtcataaa	3060
gaacataaag	acatcacccc	agTTTTtaca	ctctTTTTtc	ctgtgttttg	tttagcacia	3120
ctttccaata	accaagtgtg	tttcagatca	tccccatatt	atTTTctagt	ttcattttact	3180
taccaaactc	accattcaag	gctttcaaat	taagttacga	gtacagtggg	ccattTTTTt	3240
ctgattcttc	atattttccg	ttataagtct	tataaggaag	gtatacattt	atattgcgaa	3300
tttgaaaaat	aattttaagc	tgactttgcg	ttttaggtag	gctagaaaag	aatacaacta	3360
tccttaaaca	cattctaga					3379

<210> 71

<211> 3233

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 71

ttgctacaaa	aatgaaacct	cttattatag	taatcatagg	agtaaagaaa	atgttcttta	60
tcgcctgaaa	catcgttacc	ttcctcatct	tgatgctgaa	agtaaattga	tggagtcaag	120
cggttcacca	atagcgggat	ttcatcgcct	gagtgatatg	ttgtgggaga	taggcctggc	180
aaggaaaatc	ctttagttaa	agttgcatag	caataaatca	gcaaccaaac	acctcgtttc	240
attaccgatt	attaattatc	aatatgtgta	ctaataaat	tgtcaaaatt	tatgatgtaa	300
atTTtagggt	cccaacatat	tttactcaac	tgtaaacaag	tcataatttc	ctcggacaaa	360
attaggcaaa	ataacagaaa	aaccaatgga	tgggatgggt	aggaaaatga	gtaagtaacc	420
caaacaaacg	gtacctcttt	attcagtcgg	ctttacagat	actgaggtaa	cttataatgg	480
ttttttctta	tgagcactat	atgaatctcc	ttttccattt	ggataacagt	aaagaaacgg	540
tgctccaga	gattgcaaaa	agaataattt	caaagtctat	agctcctgta	ataacagtta	600
cttcaactcc	tctcttcgac	aaacatatcc	aagaaacgta	caaagtagat	tctctctata	660
tgctgctgcg	attctttggc	ggttggtgct	ctgatagaga	tcaagccaat	gaagcgaagg	720
ttggcacagca	tgagcatgag	gtttgtgatg	caagtgactc	gacggattca	attcccaaaa	780
ataaaaaattt	ggaagtgcgc	aatttatcaa	agaaaggtag	tcgcagtagg	tcgaatagtc	840
ttttccagag	ggattcaacg	caatctcaat	atatcagggt	tacaaggcca	ttaggtgact	900
tgatcgaaac	aagagatgca	aatgatatgt	tattcaatta	ccattcttta	gaggatttct	960
tagataatta	tttgaaattg	gttgacagca	atactgatga	aatggttcct	cataatcttc	1020
ttaagaaatc	catttatcat	agtttctttt	cactagcaat	ttcatccaca	aataacttat	1080
cgcctatga	aacttttaat	caccctatcc	tttcttgat	tgcttttagat	atatcaaagt	1140
gcgaagttaa	tgaggatgca	agagatcttt	tagtcaattt	caagaatctt	aatcataata	1200
ctgaaaactt	tcctatcttc	atgaatacaa	atgaaatgct	tccagttttc	ttactctgct	1260
acaatgacga	ttcccaagaa	gaattcgaaa	aatgccaggc	gttacgtaag	aaactaaaga	1320
agcagttggt	tgttgagagt	atcttactag	cactctggaa	ggattctttt	atTTacgacg	1380
aaaattcagt	catacagtta	caccaaccag	taatgtcatc	gcttgaagaa	attctcttct	1440
tccttcaagc	tccaactcaa	acaacactct	ctctggcttt	gataaaactcg	atctatgata	1500
tgcttgatta	tttggtttat	gatttaatga	taccattcat	gaaaagaaaa	gtgtcattct	1560
gggaagagac	aattttacag	ccaagaaagt	cgctatttaa	tggtgcaaag	tttttcaaaa	1620
aatttatgaa	taaaaatcct	gtcaatggta	atcaccaaca	taattctcta	acgagagaca	1680
gccagggaaa	tgaatacttc	gcatcgatc	cttctgagtt	tttgatgaga	aagtttagcag	1740
attggtctat	gatgctatcc	gacttcaaaa	ctgcttatcc	cacatacgaa	tcgcttatgg	1800
atgacctaga	tgacattcca	aagtacctgg	catcatgcat	cgaatgggtg	gcggtatcac	1860
tattgatggg	tgcgacagag	atagtcaccg	tgaaaatgat	caaaaacgat	ataaatcctc	1920

ttatcgaaag	ggcattagcc	acatacgaaa	actgctcacg	aatacaacgt	ggtaaaggca	1980
aagaatcaaa	ctcttttgat	gttacagagc	cagtgcgttc	gtatgagaca	cgttgtatga	2040
ttttggcatc	tgaattgttt	ttatctttaa	gcaatacgtg	gacatctacc	ccatacgcta	2100
tccaatattt	agaaacaatt	ctagacgagt	gcaagttggg	accttgttca	cagataatgg	2160
tttgggaaag	gcttagtgac	tgctataatt	tgagagttga	ccctagaatc	aaacatagag	2220
ttggagcaat	gaagaaggac	gctaaagaca	ccgaagatct	ccgaggtgag	cataagtata	2280
gcacagatca	tttcacagac	gaggacatat	tatcggaagg	gttaacaaga	agacgcaagg	2340
cagctttttt	taggttaata	gcagctaaga	agtgggcaga	gcaaaaacaa	tgagagacagg	2400
tttcttggtg	cttaaaagat	attgaaagta	cctattcaga	gatcaaattt	ttgcatggta	2460
acggtttaat	tttaagcaaa	ctaaaaaatc	aactcaattt	aaaggacgtg	gattctgcac	2520
cacggccctc	cgaaaagaat	cttacaagaa	caagtgttag	ctttattgga	tgactttatg	2580
gaaaattcat	gttttgagta	taaattatac	gtacgaatct	tatagatata	tatttttctt	2640
ttaaaactcc	atttcagctc	ataagccgat	acaaacacct	tctatatatt	atttctctaa	2700
cagctatggt	aacatgattg	cctttgttta	tctactaaag	gacccttcta	ctttatctac	2760
catacgccta	tattttctct	gtgtttcaat	catatcgaga	aaaatttggg	acttcgtgtc	2820
taaaagaatt	ctatctggat	gagttttctc	atttggattg	acaattcttg	cattaccctg	2880
tagctcttgc	ataactttcc	atagaaaact	tgtcccgtta	tatcttcctt	ctcctaggct	2940
ctcctgtccc	acgggtcaatg	aagcatcctt	actactttcc	tcagaggttt	tgtcaagtgg	3000
ttgttgtgtg	caaactggaa	gagaatagtt	atttattttg	gcaggcgcac	ttggagttag	3060
aagttgtaga	ttatgtgggg	atacaaaagg	atttgtcgag	tttcgatctt	ccattgataa	3120
cttttgtatc	gacgaatatg	aatcggttaa	acgttccgtc	tttgtctgag	aagatttttg	3180
gcctttgaga	gttctttttt	ccctggtata	atcaaaatct	tcacttgctg	cag	3233

<210> 72

<211> 1775

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 72

cgtaatttca	ttgcttgaga	tattaacgcg	ttaggttggt	ttcttcaatg	atgggcaatg	60
caatttggcg	ttaacgcctt	ggaagcaata	aggtaacagc	gaaattttatg	acatattatt	120
tcgaaccttt	tacaaactag	tagatttagt	gattttattac	ctattggcat	tcatttgtgt	180
tctatatgtg	gatgaggata	gccgcctttc	ttctcatcgg	aggccatata	atctttcgac	240
aatccttttt	aaatactatt	tccatccgtg	cctctaatag	atttgtgtag	ttgtctgggt	300
gcaatctttc	catttttgct	gaactttttt	ttttttttca	tgtttttcag	attctgaagt	360
accgcaatag	gatatggcgg	ataatcccta	atgatccgcc	tcatactagc	cattaccat	420
ctatcccagg	cattatgggt	atgcaactca	taatctcaaa	tacacaaata	agagcaacct	480
tatatatcac	tttttcccg	tcagcaagag	gtaaagccac	caaagggttca	aaatgcaaat	540
gtatgttacg	gcgaatacac	aatactatgt	tcgaaataat	atgaggatta	tacgatagca	600
aaaaagccat	aaacgaaaga	cataaatgga	aaatgattga	caagctcaca	atttattaaa	660
caagtagcaa	ttgagaaaaa	ctattacctg	cggcaagctt	ctgagtttac	attaaatctg	720
tagagcaaat	tgaaaatgtc	gcataatgtc	tgaaggggtt	gtttgttcca	tcttattttg	780
cataacatag	ttatatattac	ttggtcgcat	aaaaaatatt	ttttactaac	gtgaagtttc	840
tttctttatg	atgtacgcac	gcacgtctgt	cttactccat	aaatgaactt	attccaattt	900
tgtacagctt	cgtaagact	ttgactggta	agaccatcac	tttgggaagt	gaatcttctg	960
acaccattga	caatgtcaag	tccaagatcc	aagacaagga	aggtatccca	cctgaccaac	1020
aaagattgat	ctttgctggg	aagcaattgg	aagacggtag	aactctatct	gactacaaca	1080
tccaaaagga	atccacttta	catttgggtc	tgagatttaag	aggtgggtatc	attgaaccat	1140
ctttgaaaagc	cttggcttcc	aaatacaact	gtgacaaatc	tgtttgtcgt	aaatgttacg	1200
ccagattacc	accaagagct	accaactgta	gaaagagaaa	gtgtgggtcac	accaaccaat	1260
tgcgccaaa	gaagaagttg	aaataatcga	tttattacga	tctccacaaa	tccaaagttt	1320
gtatacatca	cgattttttt	actacatata	tatttccctt	tctattctat	ttgtaaatgg	1380
gaggaaatct	taatatggac	ctctcttcac	aaattgttct	ataatacaat	atatatcaag	1440
atataataac	aagtcatttg	agataatggg	atgcaaatat	gcgaaataag	agtaaacgga	1500
tacagtggagc	ctgaagagga	caagctgctt	ccatgttgta	gtgttttagat	atatgagctt	1560
aaaattttaga	tttactgaat	attatacaat	agtaattata	cataaagaaa	ttccatttta	1620
tctgttctgat	agcaatggaa	gaggagagag	ttctgtgaaa	caaataacag	cagcacagaa	1680

aactcccgtc aacgtaatat gggttaaaaaa aaaaaaaaaa aaaaggacag taaagttaaa 1740
 ttaaaacgca ctaaataatt tggtggtgga tcctt 1775

<210> 73

<211> 967

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 73

gatcaacaga gattgatttt tgccggttaag caactagaag atggtagaac cttgtctgac 60
 tacaacatcc aaaaggaatc tactcttcac ttggtggtga gactgagagg tggtagcaaa 120
 attttcgtca aaactctaac agggaagact ataaccctag aggttgaatc ttccgacact 180
 attgacaacg tcaaaagtaa aattcaagat aaagaaggta tccctccgga tcaacagaga 240
 ttgattttttg ctggtaagca actagaagat ggtagaacct tgtctgacta caacatccaa 300
 aaggaatcta ctcttcactt ggtgttgaga ctgagagggt gtatgcaaat ttctgtcaaa 360
 actctaacag ggaagactat aaccctagag gttgaatctt ccgacactat tgacaacggt 420
 aagtcaaaaa ttcaagacaa ggaagggtatt cctccagacc aacaaagatt gatctttgcc 480
 ggtaaccaac tagaagatgg tagaacgctg tcggactaca atattcaaaa ggagtccact 540
 cttcacctcg tcttgaggtt gaggggtggt aactgatcac tcctcgcaat attttcatta 600
 tgcataata tatatattta ctctcctttt ttggtttttt tttttttttt gataaatact 660
 ccatagaaca ctaaataaat tgttcaactg tgttattgtc tttattcatg ttggttttca 720
 agagcttgga ttttgaatcg tcttatacta tgacgttcac tatttttcgag aaccgggta 780
 ataccattag ctattttgat agaaagggtat tttattaggg aatataacca caatttaaag 840
 tgtcctatca tgtttcaatc tccagtaaac gcacataagc cgaccaattg agtcaacctt 900
 ttaactctat ttaatttgat acggatagaa tattgtgact accaaaaggg aaaaggcaga 960
 aaaaagg 967

<210> 74

<211> 2010

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 74

aaaaaagagt tactagccgt atatggatgt ttgaagatac atggaaaccg tctctggtgt 60
 cgtgtatata agaaacttct agttttattc agacgcactc attatctttg ctacataaca 120
 tttctctctg atttgactgc gcactctacc cctcccccat gcatgtggag tcataggagt 180
 aattttaaag gtagaatttc atattaaata tcgctgcttg attattttgt agcaaataca 240
 aagagtgttt caagtaagta aaaacatttg agcctcccca tttgttgaaa ggagagaaat 300
 taaactttgtt tggggttaat tatttgatgg gtatattaat ttgcaaccgc aaggatcga 360
 taataaatat tctacaaaac ctttatcaat agtgggtgaag tctttagtgc gatctacctg 420
 ggggttaatga acgagaagtt cttgagatat ctttctctgt tacctcctg catcctgtaa 480
 ggaattgggt ttatcattta tcattttatt tagtacaac tttttttttt ggcccgggcg 540
 cactttttca agcgggtggga actcatcaaa atgaaaaact agatactttt agacttatta 600
 aatgggttaa atattttgag atgttcgtta tatcagaaac ttccttactt ctatctttta 660
 ttccaatata aagaagtcac aagattactt ggtaagaaag aagcagttaa tttttaattt 720
 tgccgacaag ccaagatgca aattttcgtc aagactttta ccggttaagac tattaccctg 780
 gaagtgtaat cttctgacac tattgacaat gtcaagtcca agatccaaga caaggaagg 840
 attccacctg accaacaag attgatcttt gctggtaagc aattggaaga tggtagaact 900
 ttgtccgact acaacatcca aaaggaatct actctacact tgggtcttgag attgagagg 960
 ggtggttaaga agagaaagaa gaagggtctac accaccccaa agaagatcaa gcacaagcac 1020
 aagaagggtca agttggctgt cttgtcctac tacaaggctg atgctgaagg taaggttacc 1080
 aaattgagaa gagaatgtag caaccctact tgtggtgctg gtgttttctt ggctaaccac 1140
 aaggacagat tgtactgttg taagtgtcat tccgtctaca aggttaacgc ttaagtaaaag 1200
 tattttttaa acttatatat tttaattgat cggttaaattt tgaaaaaggc ttttaatat 1260
 gtcattattt acttttctat ttacaacaaa agaacaatg aatagataga cagtagagga 1320
 atataagtag tatgcagtgc catgctggat caaggaattt gtatctctaa ttttcgtggt 1380
 tgtatgcgtc tctaaacaag tcaatatttt gctgtaagat gggtctgccg ctcctttcag 1440

ttcctttaag	aagcgtacct	gcagatat	taacatcctc	catgggttca	ttgactttac	1500
tgacaagt	attgctcaag	tcatcaacat	gtttttccca	attttcta	aatacttgca	1560
aaacagcatc	gaatcccat	ttaccctttt	tagcgttctc	gcaaaacctt	tgaactgacc	1620
aatcttccat	cttattacac	agctttctaa	tggatccata	tgctgtaatt	tgggcttcct	1680
gctggaaaag	tgttttatta	gccgagtcac	cgggatgcgg	gctatatgtt	acagtttcgt	1740
agacttttaa	tagattgcac	atcgttaaat	tacagcttct	catgggtcaag	ctctttttat	1800
ttaagtctac	cacagaaact	tctctgacac	gactcatatt	ggctccctcct	agcatcatca	1860
tgatccattt	gggaacacct	tgttttacag	taatcaaccg	ttcagtaact	aagaccttac	1920
cttgatcctt	caattctctt	cttaaaacgt	ccactgcgat	gacatgtgta	gatatttcat	1980
ttgggtattt	tttccagtta	gcggcggtta				2010

<210> 75

<211> 6224

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 75

gaattccctg	atcaactttc	aaggaaaaac	taaaactact	gtattataag	agggtttttc	60
acttccagat	taattttgaa	atacgatc	ctcaagttta	tctaccagaa	tatttgacta	120
agaaatcaaa	ctctgttaat	aataatataa	ttataaaaaac	ctcaactaga	aactccaaaa	180
aaaaaaat	accat	actttctatc	cttggttaacc	aaatttcaaa	aaaat	240
cttttctttt	tccagaagag	ggaccaatca	taaagatagt	aataacactt	taccccaaaa	300
tataaatcag	acatggtagg	acaacagtat	tctagtgtc	cactccgtac	agtaaaagag	360
gtccaattcg	gtcttttctc	acctgaagaa	gttagagcaa	tcagtgtggc	caaaattagg	420
tttccagaga	caatggatga	aaccagacg	agagcgaaaa	ttgggtgtct	aaacgaccct	480
aggtaggct	ctattgatcg	taatctgaag	tgtcaaactt	gtcaagaggg	tatgaacgaa	540
tgctctggtc	at	catagattta	gcaaaacctg	tatttcatgt	tggttttatt	600
gccaaaatta	agaaagtatg	tgagtgtgtc	tgtatgcact	gtggttaagct	attactggat	660
gaacataatg	aattaatgag	acaagctcta	gcaatcaaa	acagtaaaaa	aagggttgct	720
gcaatttgga	ctttatgtaa	aacaaaaatg	gtctgcgaaa	cagatgtccc	ttctgaagat	780
gaccctactc	agctcgtatc	aaggggaggt	tgtggttaata	cacagcctac	aattcgtaag	840
gatgggttga	aattagttgg	tagttggaaa	aaagatagag	ccacggggga	tgcggtatga	900
ccagaactaa	gagttttaag	tacggaggaa	atcttgaata	tttttaagca	tatctcagta	960
aaagacttca	ctagtttggg	tttcaacgaa	gttttttctc	gtccagaatg	gatgatttta	1020
acatgccttc	ctgtcccacc	accaccgggtg	cgtccatcca	tttcttcaa	tgaatctcaa	1080
agaggtgagg	atgatttaac	ctttaaactt	gctgatattt	taaaagctaa	tattagtttg	1140
gaaacactag	agcataacgg	tgctccacat	catgctattg	aagaagcaga	gagtttatta	1200
caatttcatg	ttgccactta	tatggataat	gatattgctg	gtcaaccaca	agctcttcaa	1260
aagtccggcc	gtcccgttaa	atctattcgt	gctcgtttga	agggtaaaga	gggtcgtatc	1320
agaggtaatt	taatgggtaa	gcgtgtggat	ttttcgga	gaactgttat	ttctggtgat	1380
cctaatttgg	aattagacca	agtcggtgtt	ccaaaatcta	ttgccaagac	tttaacatac	1440
ccagaagtgg	tcacaccata	taacatagat	cgtctgacgc	aacttgtag	gaatggacca	1500
aatgaacacc	ccggtgccaa	atacgtcatt	cgtgatagcg	gagaccgtat	agatttaaga	1560
tacagtaaaa	gggcaggtga	tattcaatta	cagtatgggt	ggaaagtga	acgtcatatt	1620
atggacaatg	atccagtttt	attcaaccgt	caaccttcgt	tgacacaaat	gtccatgatg	1680
gccacagag	taaaagtatt	tccatattct	acatttagat	tgaatttgct	cgttacatct	1740
ccatacaatg	ccgatttcga	cggtgacgaa	atgaatcttc	acgttcctca	gtctgaggaa	1800
acaagggcgg	aactttctca	attatgtgct	gttcctctac	aaattgtttc	accacaatct	1860
aacaaacctt	gtatgggtat	tgttcaagat	actttgtgtg	gtattcgtaa	actgacatta	1920
agagatacat	ttatagaact	tgatcaagtt	ttgaatatgc	tttattgggt	tccagattgg	1980
gatgggtgta	ttccgacacc	tgcaattatc	aagcccaaac	ctttgtggct	cggtaaacaa	2040
atcttgtctg	tggctatccc	aaacggtatt	catttacaac	gttttgatga	gggcactact	2100
ctgctttctc	caaaggataa	tggtatgctt	attattgacg	gtcaaatacat	ttttgggtga	2160
gtagagaaaa	aaaccgttgg	ttcctccaat	ggtggtttaa	ttcatgttgt	tacaagagaa	2220
aagggacctc	aagtttgtgc	taagttgttt	ggtaacatac	agaaagtgtg	taacttttgg	2280
ttactacata	atgggttttc	aacaggtatt	ggtgatacca	ttgcggacgg	cccaacaatg	2340
agggaaatta	cagagacaat	tgcagaggct	aaaaagaaag	ttttggatgt	tacgaaagaa	2400

gcccaggcaa	acttattgac	tgctaaacat	ggatgactc	tccgtgagtc	ttttgaggat	2460
aacgttggtc	ggttcctaaa	tgaagcaaga	gataaggcag	gtcgttttagc	tgaagtcaat	2520
ttgaaagatt	tgaacaatgt	gaaacaaatg	gttatggcag	gttccaaggg	ttcattttatt	2580
aatatcgcg	aatgtcagc	ttgtgtagga	cagcaatctg	ttgaaggtaa	acgtattgct	2640
tttgggttcg	ttgatcgta	cttacctcat	ttctctaaag	atgattactc	cccagagtct	2700
aaagggtttg	ttgagaactc	atatttgaga	ggtttgaccc	cacaagaatt	ttttttccat	2760
gcaatgggtg	gtcgtgaagg	tcttatcgat	accgccgtca	aaacagccga	aacagggttat	2820
attcaacgtc	gtttagtga	agctctagaa	gatatcatgg	ttcattacga	taacaccaca	2880
agaaactcat	tgggtaacgt	tattcagttt	atztatgggtg	aagatgggtat	ggatgctgcg	2940
catattgaaa	agcaatcgct	agatactatt	gggtggctccg	atgcagcttt	tgaaaagaga	3000
tacagagttg	atttattgaa	tacagaccat	acccttgatc	cctcactatt	ggaatccgga	3060
tctgagatac	ttggcgattt	gaaacttcaa	gttctcctgg	atgaagaata	caaacaatta	3120
gtgaaagatc	gtaaattttt	gagggaggtt	tttgttgatg	gtgaagcaaa	ctggccatta	3180
ccagtcaaca	taagacgtat	tattcaaaat	gctcaacaaa	ctttccacat	agatcatacg	3240
aaaccatctg	atttaacaat	caaagacatc	gttcttggtg	taaaggattt	gcaagaaaac	3300
ttattagtgt	tgcgtggtaa	gaatgaaatt	atacaaaatg	cccagcgaga	tgcagttaca	3360
ttgttctgct	gtttattacg	ttcccgtttg	gccacacgta	gagttctgca	agagtacaga	3420
ctaacaanaac	aggcattcga	ttgggtatta	agtaatatcg	aggcacaatt	cctccgttct	3480
gttgttcacc	ctggtgaaat	ggttgggtgtt	ctagcagccc	aatccattgg	tgaaccagcc	3540
acacaaatga	cccttaacac	cttccatttt	gctgggtgtg	cttccaaaaa	agttacttct	3600
gggtgtcccc	gtttaaagga	aattttgaat	gtggccaaaa	acatgaaaac	gccttccttg	3660
actgtatact	tagagcctgg	tcagtctgcc	gatcaagaac	aagcgaagtt	gatcagatct	3720
gctatcgagc	ataccacttt	aaagagtgtc	actattgctt	cagaaattta	ctatgatcct	3780
gatccacgtt	ccacagttat	tccagaagat	gaagaaatta	tccaacttca	tttctcatta	3840
ttggatgaag	aagctgaaca	atcttttgac	caacaatcac	cttgggttatt	acgtctggaa	3900
ctggatcggtg	cagcaatgaa	tgataaagac	ttaacaatgg	gtcaggttgg	tgaaagaatc	3960
aagcaaacat	tcaaaaatga	tttgtttgtt	atctgggtctg	aagacaacga	tgagaagttg	4020
atcatccgtt	gtcgtgttgt	tcgtccaaag	tcactagatg	ctgagactga	agcagaagaa	4080
gatcatatgt	tgaagaaaat	tgagaacaca	atggttagaga	atattacatt	acgtgggtgta	4140
gagaacatcg	agcgtgttgt	catgatgaaa	tatgaccgta	aagtaccaag	tccaactggg	4200
gaatacgtta	aggaacctga	atgggtgttg	gaaacagatg	gtgttaactt	atctgaagtt	4260
atgactgttc	ctgggtatcga	cccaaccaga	atctatacca	actccttcat	tgatataatg	4320
gaagttctag	gtattgaagc	tggtcgtgca	gccttgata	aagaagttta	caatgttatt	4380
gcttctgatg	gttcgtatgt	taactaccgt	catatggctt	tgtagtcga	tgttatgaca	4440
acccaagggtg	gcttaacttc	tggtactcgt	catggtttca	acagatcaaa	tacagggtgcc	4500
ttaatgagatg	gttcatttga	agaaactgtc	gaaattttgt	ttgaagctgg	tgcttcagcc	4560
gaattagatg	attgtcgtgg	tgtttcggaa	aatgtcattc	ttgggtcaaat	gggtccaatt	4620
ggtagccgtg	catttgatgt	gatgatcgat	gaggagtac	tggtaaaata	catgccagaa	4680
caaaaaataa	ctgagattga	agacggacaa	gatgggtggc	tcacaccata	cagtaacgaa	4740
agtgggtttg	tcaatgcaga	tcttgacgtt	aaagatgagc	taatgttttc	acctctgggt	4800
gattcgggtt	caaatgacgc	tatggctgga	ggatttacag	cgtacgggtg	tggtgattat	4860
ggatgaagcca	cgtctccatt	tgctgcttat	ggatgaagcac	ctacatctcc	cggatttgga	4920
gtctcctcac	caggcttttc	tccaacttcc	ccaacatact	ctcctacctc	tccagcgtac	4980
tcaccaacat	caccatcgta	ctcgccaaca	tcaccatcgt	attcaccaac	gtcaccatca	5040
tattcgccaa	cgtcaccatc	atattcgcca	acgtcgccat	cgtattctcc	aacgtcacca	5100
tcgtattcgc	caatgtcgcc	ttcctactct	cccacgtcgc	caagctacag	ccctacgtcg	5160
ccaagctaca	gccctacgtc	tccttcttat	tctcctacat	ctccatcata	ctctcctacg	5220
tcaccaagtt	acagcccaac	gtcaccaagt	tacagcccaa	cgtctccagc	ctattcccca	5280
acatcaccaa	gttatagtcc	tacatcgctt	tcatactctc	caacgtcacc	atcctattcc	5340
ccaacatcac	cttcttactc	tcccacctct	ccaaactata	gccctacttc	accttcttac	5400
tccccaacat	ctccaggcta	cagcccagga	tctcctgcat	attctccaaa	gcaagacgaa	5460
caaaagcata	atgaaaatga	aaattccaga	tgatatagta	tatcatcctt	acgtatttga	5520
cgttattaca	ttatatatag	tttctcaaat	aatatttcta	gtttattttt	gtatcataat	5580
aaaaacgtat	accaaataat	ccattatttt	tcataacatt	atggtaggga	tagggaatca	5640
agtaactaat	ttatatccgc	agagcattgg	gaaaaccaac	ggcgctagta	aatgcattta	5700
aattacgtcc	gtccaacttc	taagcttcaa	tggtagactc	ttaactctga	ccttttttagc	5760
aattaagctc	ttgaagatat	caaaagtgtt	accgtccggc	tgtaaattat	aaacgtttcc	5820

tgtaaattga	gtggaatacc	gcttaccatt	cttttgcaat	cagtaaaccg	tagtcttccg	5880
tgataccagt	aatcatggct	tgcgtatttc	cgtgatctgg	taatgttact	atttggttac	5940
tatgtaacac	aactcataat	aacttggcaa	tatttccgca	gctccgtagt	taataaaactg	6000
ttttaatatg	acctcaaggt	tattcatata	gagtgcctgc	agtttttctg	cctttatttgc	6060
tggcaataaa	tcaaggtgta	attgttggcg	ttcttcattc	aggatatcaa	tccaagtttg	6120
taatgaagtt	gtaggaccat	cactagtcaa	atttatacca	cagccaagta	gcaaacaata	6180
tttattgttt	atgaagtggg	tattaactaa	taaaccagag	atct		6224

<210> 76

<211> 3969

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 76

caacttacaa	tcattgttcg	ccccttccat	acttactgcc	actcgcaaaa	gggcccacc	60
agggcaatta	cgtatcaaaa	aatcatgaca	ggctgggtaa	taaatattcg	tgaagaaaga	120
agaaattaaa	aaaagaaacg	agaagcaaaa	aaaaagaaaa	gactccgttt	aatcactttc	180
aaccgcggtt	tatccggccc	cacctatgca	taaccctaaa	ttattagatc	acttagcacg	240
tgaaaaagaa	acgtttttta	tggttttttt	ttttttcttt	ttcttttttt	gcgttggtga	300
aaattttttc	gcttcctcga	gtataattat	ctcatctcat	ctttcatata	agataagaag	360
ttttataaaa	accttttgca	tcaaaatttt	gttgaataac	tctttttctt	acgctctctt	420
tctttcttta	attgttttct	aaagaaccgt	gtatttttct	agttcgaatc	catcgataac	480
attaaaagat	gtctgattcc	cagcaatcca	ttaaggttct	agaagaacta	ttccagaagt	540
tatctgttgc	cactgctgac	aacagacacg	aaatcgcttc	tgaagtcgct	tctttcttga	600
atggtaacat	cattgaacat	gatgttccag	aacacttctt	cgggtgaattg	gccaagggta	660
tcaaggacaa	gaagaccgct	gctaacgcc	tgcaagctgt	tgctcacatt	gctaaccaat	720
ctaacttgct	tccatctgtt	gaaccataca	tcgtccaatt	ggttccagct	atctgtacca	780
acgcaggtaa	caaggacaaa	gaaattcaat	ctggtgcttc	cgaaactttg	atttccatcg	840
ttaacgctgt	taaccaggtt	gccatcaaa	ctttgttgcc	acatttgact	aacgctattg	900
tagaaactaa	caaattggcaa	gaaaagattg	ctattttggc	agctttctct	gctatggctg	960
atgctgctaa	ggatcaagtt	gccctaagaa	tgccagaatt	gattccagtc	ttgtctgaaa	1020
ccatgtggga	caccaagaag	gaagtcaagg	ctgctgctac	tgccgccatg	accaaggcta	1080
ccgaaactgt	tgacaacaag	gatattgaac	gtttcattcc	aagtttgatt	caatgtattg	1140
ctgacccaac	tgaagttcca	gaaaccgttc	atttgctagg	tgctactact	ttcgttgctg	1200
aagttactcc	agctactttg	tccatcatgg	tcccattggt	gtccagaggt	ttgaacgaaa	1260
gagaaaccgg	tatcaagcgt	aagtctgctg	ttattattga	caacatgtgt	aagttggctg	1320
aagaccacga	agttattgtc	cctttcttgg	gtaaatgtgt	gccagggttg	aagagtaact	1380
ttgctaccat	tgctgaccga	gaagccagag	aagttacttt	gagagctttg	aagactttga	1440
gaagagttgg	taacgttggt	gaagacgatg	ctattccaga	actttctcac	gctggtgacg	1500
tttctactac	tttgcaagtc	gttaacgaat	tggtgaagga	cgaaaccgtt	gctccaagat	1560
ttaagattgt	cgctgagtac	attgccgcca	ttggtgctga	tttgatcgat	gaaagaatca	1620
ttgaccaaca	agcttggttc	accacatca	ccccatacat	gactatcttc	ttgcacgaaa	1680
agaaggccaa	ggacatcttg	gacgaattca	gaaagagagc	tgctcgacaac	attccagttg	1740
gtccaaactt	cgacgacgaa	gaagacgaag	gtgaagactt	atgtaactgt	gaattttctt	1800
tggcttatgg	tgctaaaatc	ttgttgaaca	agaccaat	aagattgaag	agagccagaa	1860
gatatggtat	ctgtggtcca	aacggttggt	gtaagtccac	tttaatgaga	gctattgcc	1920
acggtcaagt	tgatgggttc	ccaaccgaag	aagaatgtag	aaccgtctac	gtcgaacacg	1980
acattgatgg	tactcactct	gacacttccg	tcttggtatt	cgttttcgaa	tctggtggtg	2040
gtactaaaga	agctatcaag	gacaaattga	ttgaattcgg	tttcaccgat	gaaatgattg	2100
ctatgccaat	ctctgcttta	tctggttggt	ggaagatgaa	gttggtctta	gctagagctg	2160
tggtgagaaa	tgctgatatc	ttgttggttag	atgaaccaac	taaccatttg	gataccgtca	2220
acgttgcttg	gttagttaac	tacttgaaca	cctgtggtat	cacttctatc	actatttctc	2280
acgactccgt	tttcttagat	aacgtctgtg	aatatattat	taactacgaa	ggtttgaagt	2340
tgagaaagta	caagggtaac	tttaccgaat	tcgttaagaa	gtgtccagct	gctaaggctt	2400
acgaagaatt	atccaacact	gatttggat	tcaagttccc	agaaccaggt	tacttggag	2460
gtgttaagac	tgaacaaaag	gctattgtca	aggttacc	catggaattc	caatatccag	2520
gtacctctaa	gccacaaatc	actgacatta	acttccaatg	ttctttgtct	tccagaattg	2580

ctgtcattgg	tccaaatggt	gctggtaagt	ctactttgat	taacgtcttg	actgggtgaac	2640
tattaccaac	ctctggtgaa	gtctacaccc	acgaaaattg	tcgtatcgct	tacattaagc	2700
aacacgcttt	tgctcatatc	gaatctcatt	tggacaagac	tccatctgaa	tatatccaat	2760
ggagattcca	aaccggtgaa	gatagagaaa	ccatggacag	agctaacaga	caaatacaacg	2820
aaaacgatgc	tgaagctatg	aacaagatct	tcaagattga	aggtaccctt	agaagaattg	2880
ccggtatcca	ctccagaaga	aagttcaaga	acacttacga	atatgaatgt	tctttcttat	2940
tgggtgaaaa	cattggtatg	aaatctgaaa	gatgggttcc	aatgatgtcc	gtcgacaacg	3000
cttggattcc	aagaggtgaa	ttgggtgaat	ctcactctaa	gatggttgct	gaagttgata	3060
tgaaggaagc	tttggcttct	ggtcaattcc	gtccattaac	cagaaaagaa	attgaagaac	3120
attgttccat	gttgggtttg	gaccagaaaa	ttgtttctca	ctccagaatt	agaggtttgt	3180
ctgggtggtca	aaaggttaag	ttgggtcttag	ctgccggtac	atggcaaaga	cctcacttga	3240
ttgtcttaga	tgaacctacc	aactatctgg	acagagattc	tttgggtgct	ttgtctaagg	3300
ctttgaagga	atttgaaggt	ggtgttatta	tcattactca	ctctgctgaa	ttcacaaaga	3360
acttgactga	agaagtctgg	gccgtcaagg	acggtagaat	gactccatct	ggtcacaact	3420
gggttagtgg	tcaaggtgct	ggtccaagaa	tcgaaaagaa	ggaagacgaa	gaagataaat	3480
tcgatgctat	gggtaacaag	attgccggtg	gtaagaagaa	gaagaagttg	tcttctgcgg	3540
aattgagaaa	gaagaagaag	gaaagaatga	agaagaagaa	ggaattgggt	gatgcttacg	3600
tttcttctga	cgaagaattc	taatcttttt	gatcactgct	ttcacagttt	tctttaagat	3660
ttttattgat	caataattta	tgtataattt	aatttctatg	tttttgtaat	attgtttatt	3720
ttggtaaaat	atagacgcaa	cttccttatt	ataaagaaaag	gcattattta	aaagaaaaag	3780
cgttccatta	gtcagacatc	tttttttttt	tcatacatct	ttaagcctca	ggcaaattga	3840
gcattgcctc	ataccctttt	cggtaaagagg	gtaacgaaaa	tatttttttg	gaagaataaaa	3900
aataggtgac	ggatcataga	ctaggaagct	ttaaaacatg	attgagcgta	atattatatt	3960
ccttctaga						3969

<210> 77

<211> 3593

<212> DNA

<213> Artificial Sequence

<220>

<223> Expression vector pPICZalpha

<400> 77

agatctaaca	tccaaagacg	aaaggttgaa	tgaaaccttt	ttgccatccg	acatccacag	60
gtccattctc	acacataagt	gccaaacgca	acaggagggg	atacactagc	agcagaccgt	120
tgcaaacgca	ggacctccac	tcctcttctc	ctcaacaccc	acttttgcca	tcgaaaaacc	180
agcccagtta	ttgggcttga	ttggagctcg	ctcattccaa	ttccttctat	taggctacta	240
acaccatgac	tttattagcc	tgtctatcct	ggccccctg	gcgaggttca	tgtttgttta	300
tttccgaatg	caacaagctc	cgcattacac	ccgaacatca	ctccagatga	gggctttctg	360
agtgtggggg	caaatagttt	catgttcccc	aaatggccca	aaactgacag	tttaaacgct	420
gtcttggaac	ctaatatgac	aaaagcgtga	tctcatccaa	gatgaactaa	gtttggttcg	480
ttgaaatgct	aacggccagt	tggtcaaaaa	gaaacttcca	aaagtcggca	taccgtttgt	540
cttgtttggg	attgattgac	gaatgctcaa	aaataatctc	attaatgctt	agcgcagtct	600
ctctatcgct	tctgaacccc	ggtgcacctg	tgccgaaacg	caaatgggga	aacacccgct	660
ttttggatga	ttatgcattg	tctccacatt	gtatgcttcc	aagattctgg	tgggaataact	720
gctgatagcc	taacgttcat	gatcaaaaatt	taactgttct	aacccttact	tgacagcaat	780
atataaacag	aaggaagctg	ccctgtctta	aacctttttt	tttatcatca	ttattagctt	840
actttcataa	ttgcgactgg	ttccaattga	caagcttttg	attttaacga	cttttaacga	900
caacttgaga	agatcaaaaa	acaactaatt	attcgaaacg	atgagatttc	cttcaatttt	960
tactgctggt	ttattcgagc	catcctccgc	attagctgct	ccagtcaaca	ctacaacaga	1020
agatgaaacg	gcacaaattc	cggctgaagc	tgtcatcggt	tactcagatt	tagaagggga	1080
tttcgatggt	gctgttttgc	cattttccaa	cagcacaaat	aacgggttat	tgtttataaaa	1140
tactactatt	gccagcattg	ctgctaaaaga	agaaggggta	tctctcgaga	aaagagaggc	1200
tgaagctgaa	ttcacgtggc	ccagccgggc	gtctcgatc	ggtacctcga	gccgcggcgc	1260
ccgccagctt	tctagaacaa	aaactcatct	cagaagagga	tctgaatagc	gccgtcgacc	1320
atcatcatca	tcatcattga	gtttgtagcc	ttagacatga	ctgttcctca	gttcaagttg	1380

ggcacttacg	agaagaccgg	tcttgctaga	ttctaataca	gaggatgtca	gaatgccatt	1440
tgccctgagag	atgcaggctt	cattttttgat	acttttttat	ttgtaacct	tatagtatag	1500
gatttttttt	gtcattttgt	ttcttctcgt	acgagcttgc	tcctgatcag	cctatctcgc	1560
agctgatgaa	tatcttgtgg	taggggtttg	ggaaaatcat	tcgagtttga	tgtttttctt	1620
ggtattttccc	actcctcttc	agagtacaga	agattaagtg	agaccttcgt	ttgtgcggat	1680
ccccacaca	ccatagcttc	aaaatgtttc	tactcctttt	ttactcttcc	agattttctc	1740
ggactccgcg	catcgccgta	ccacttcaaa	acaccaagc	acagcatact	aaattttccc	1800
tctttcttcc	tctaggggtg	cgtaatttac	ccgtactaaa	ggtttggaag	agaaaaaaga	1860
gaccgcctcg	tttctttttc	ttcgtcgaaa	aaggcaataa	aaatttttat	cacgtttctt	1920
tttcttgaaa	tttttttttt	tagttttttt	ctctttcagt	gacctccatt	gatattttaag	1980
ttaataaacg	gtcttcaatt	tctcaagttt	cagtttcatt	tttcttggtc	tattacaact	2040
ttttttactt	cttggttcatt	agaaagaaag	catagcaatc	taatctaagg	ggcgggtgtg	2100
acaattaatc	atcggcatag	tatatcgga	tagtataata	cgacaagggtg	aggaactaaa	2160
ccatggccaa	gttgaccagt	gccgttccgg	tgctcaccgc	gcgcgacgtc	gccggagcgg	2220
tcgagttctg	gaccgaccgg	ctcgggttct	cccgggactt	cgtggaggac	gacttcgccg	2280
gtgtgggtccg	ggacgacgtg	accctgttca	tcagcgcggg	ccaggaccag	gtgggtgccg	2340
acaacaccct	ggcctgggtg	tgggtgcgcg	gcctggacga	gctgtacgcc	gagtgggtcg	2400
aggtcgtgtc	cacgaacttc	cgggacgcct	ccgggcccgg	catgaccgag	atcggcgagc	2460
agccgtgggg	gcgggagttc	gccctgcgcg	acccggccgg	caactgcgtg	cacttcgtgg	2520
ccgagtgagc	ggactgacac	gtccgacggc	ggcccacggg	tcccaggcct	cggagatccg	2580
tccccctttt	cctttgtcga	tatcatgtaa	ttagttatgt	cacgcttaca	ttcacgccct	2640
ccccccacat	ccgctctaac	cgaaaaggaa	ggagttagac	aacctgaagt	ctaggtccct	2700
atttattttt	ttatagttat	gttagtatta	agaacgttat	ttatatattca	aatttttctt	2760
ttttttctgt	acagacgcgt	gtacgcatgt	aacattatac	tgaaaacctt	gcttgagaag	2820
gttttgggac	gctcgaaggc	tttaattttg	aagctggaga	ccaacatgtg	agcaaaaggc	2880
cagcaaaagg	ccaggaaccg	taaaaaggcc	gcgttgctgg	cgtttttcca	taggctccgc	2940
ccccctgacg	agcatcacia	aaatcgacgc	tcaagtcaga	ggtggcgaaa	cccgcacagga	3000
ctataaagat	accaggcggt	tccccctgga	agctccctcg	tgcgctctcc	tggtccgacc	3060
ctgccgctta	ccggatacct	gtccgccttt	ctcccttcgg	gaagcgtggc	gctttctcaa	3120
tgctcacgct	gtaggatatct	cagttcgggtg	taggtcggtc	gctccaagct	gggctgtgtg	3180
cacgaacccc	ccgttcagcc	cgaccgctgc	gccttatccg	gtaactatcg	tcttgagtcc	3240
aacccggtaa	gacacgactt	atcgccactg	gcagcagcca	ctggtaacag	gattagcaga	3300
gcgaggtatg	taggcgggtgc	tacagagttc	ttgaagtggg	ggcctaacta	cggctacact	3360
agaaggacag	tatttggtat	ctgcgctctg	ctgaagccag	ttaccttcgg	aaaaagagtt	3420
ggtagctctt	gatccggcaa	acaaaccacc	gctggtagcg	gtgggttttt	tggttgcaag	3480
cagcagatta	cgcgcagaaa	aaaaggatct	caagaagatc	ctttgatctt	ttctacgggg	3540
tctgacgctc	agtggaacga	aaactcacgt	taagggtatt	tggtcatgag	atc	3593

<210> 78

<211> 3731

<212> DNA

<213> *Aspergillus nidulans*

<400> 78

tctagatggt	gttgcaatgc	tagggaaaag	tcaccggctc	ctgggtatgat	aagaagcgcg	60
agagcgggtc	aatcagcatt	atattgctag	ggagcgcgca	ggagtgaggc	ttgcatttgc	120
agagagcgaa	agcgatagtc	ggccatgggtc	ctctgcttcg	aagatcgatt	taaaatcaac	180
gatatggaca	tccagggtttc	tttgatatctg	ccgagtagat	gaatcgcggt	caagctttca	240
aggaacgtca	aaaagaacca	cccagctgca	actggaagga	tggatgggtg	ttgcaagcat	300
ggataaagaa	gtcacgggtt	ctgtcagagc	gcgtcagagc	gcgactgaat	gcagttgttg	360
gccactcacg	ctgaagtcca	ggcccacacg	gtttgctgct	gctctttcct	attggacaaa	420
tttgccacca	cagcgcccat	aaattttccc	tagagttacg	ctagcggctt	gccgtccatg	480
ggtctgagac	ttgggcttag	cccgcttttc	cgctcccca	aaacatataa	agcccgctcac	540
ctccccgacc	ctgcgtttta	gaaatttatg	tcggctgggt	cttggcgctt	gtcctcattc	600
cgctccccct	ccctcaccgg	actctctctc	cacacacaaa	gtccttgagg	tctgcagatt	660
ctcgctcttg	cgtagtctgc	ttaattcagg	tgccaaaaaa	ataagttgct	gagacaaaag	720
ttgcagcctc	aggcacgcat	cagcatctta	tcttcgccgt	tcacttcaaa	cacaaatcac	780

accaagatag	aagagcttac	ccgaggatac	tggaagcaag	aagaatctga	gcttgtcatc	840
cgaagtgttt	cctctactta	tccactccct	ttattacaca	tcgctgctcg	cttgcaattc	900
attatcgcg	caaaactgtc	atltcaatta	atagaaaaca	cttcattgtg	atctttcttc	960
tgcccatcct	cacaaccctt	cacatatctc	ccctctattg	ggcattgcgt	ttctcgtcaa	1020
ttgccctgcg	cctgtttttg	tactgcgaaa	eggctcatcc	ttgaaggcag	tctactaggg	1080
gatacattca	gttggtccatc	tccacgaggt	ttgttgttca	tcccgccctg	tcgcccatac	1140
gcatatgcct	cccccataat	ttcccactct	tccatatttg	cgggaactaa	ctcgctgcag	1200
tctgccagtt	ttcactcaac	tggtcacaca	cttgagcaaa	gtttgacaga	cctgacaatg	1260
gactcgctca	ctactcatcc	tgccactgcc	caacaggctc	gtgccttcac	ttctccctcg	1320
tcgctgtctt	tccctggcgg	cactgccttc	cctgggtggg	ctgacctgac	accgccttcc	1380
gataaggatg	cgaatatggc	cactaatggg	cagagcgcg	atggaaatgt	gaatggccag	1440
cagcagggag	caaatgccgc	taacggcaat	gggggtgatg	ccgctactcc	agctgcgacc	1500
cctgggtgcc	gcgctccagg	gagtgggtatc	gtgcctacct	tgcaagtgtg	atactctgtt	1560
gtcatctttc	tgggtccacca	gaatactgaa	caaagactac	tcttgaagaa	acattgtcgc	1620
tacagtcaac	cttgattgtc	gtcttgatct	caagactatt	gcgctgcacg	ccagaaatgc	1680
ggaatacaac	cctaagggtat	tattttccac	acctccctga	gtggattaaa	tcagggtaca	1740
gtgtggctga	actggttttc	ctctagcggt	tcgcgccgt	tatcatgcgt	attcgggaac	1800
ccaagacgac	tgcggtgatc	ttcgccctcg	gcaagatggg	ggttactggg	gccaagtcgg	1860
aagacgattc	caagtgtggc	tcgaggaagt	acgctcgat	catccagaag	ttgggcttca	1920
atgccaaagt	cacagatttc	aaaatccaga	aactgtggg	gtcctgcgat	atcaaatttc	1980
caattcgttt	ggaagggtcg	gcgagtcgtc	accacaactt	cagttcctac	gaaccggagc	2040
tgttcccagg	tcttattttac	cgtatgatga	agccaaagat	cgtcctcttg	atcttcgtca	2100
gcggaaaaat	tgtcctgacc	ggagccaaag	tccgtgaaga	gatctatcag	gctttcgaac	2160
tcacttacct	tgtgctctct	ggtaagcttc	ccacgttcga	tatccgaaca	cccgtcaatt	2220
ttggtacaga	tttccgcaag	gtctaaagag	tagcaattct	gatgaggggc	tgagatatct	2280
cagcactttg	tcatactcac	ttcaaaccct	tgtattatca	aaaagtctct	cgatgccggg	2340
gcggctaagg	ctcaagtcta	gtcagccgtg	gtatcttctg	aactgcatca	cgagttttat	2400
gcgagcatta	gtacggcggt	ctagcgattc	gggtttgttt	ggtttttttt	tctaaggcaa	2460
ttttcaacac	gattcacaaa	ttagacagtc	gcacaccgca	ggttgaaaag	ggggcggtac	2520
tgcgcgctgg	tcggcttggt	gcctccttct	aattccccgt	ttgtcttcca	gtctattgac	2580
accgagggct	tctcgaactg	ctctatgcag	tctcttgggt	tactcgtctt	ttttttcccc	2640
tgggcactgg	gctccctggt	ttagatcgct	ctacttaatt	gatgcctgat	gacgggtttg	2700
taagcctgat	ccagtagcat	tacttaacat	ataaaataaa	aagtggatga	gatctttctt	2760
tcgccgttta	ggtcttaaaa	gccagtttgc	gtcttaaaag	cagtttgcca	atataaatgt	2820
tcgtataagg	atgaatcgta	ttcaaagaat	taaattgtca	gaaaaactac	tgatgctcgc	2880
ataagacatg	tgatgcagtc	gaagatacgc	atgcatatac	atatatacac	tagctaacta	2940
ccaccaata	tatatatccc	tctccgttta	tctatttcac	acacatacca	aaagctgggt	3000
ttatccgtca	gacctacaac	gcactctccc	gcttcgcttt	ctgccccttc	gccaactcat	3060
ccaaaagcag	cagccgctta	tcccctgaac	gacttccatc	ctctgttccg	tcaaagtggg	3120
cctcgtccac	agcctccggc	cagtcccaga	gcgcgcgcag	ttcgggtgcg	agcttaccct	3180
ccagcgcac	gaccaccttt	tcgccgataa	gtgggaagaa	tttgtatgcg	tggccgctgc	3240
caccagttgc	aaggacgagg	tgtgggtgcg	atggatgggt	ggtgattatg	aagtcgcctc	3300
tgggactggt	tgggcatagt	tagtatcgaa	tggatcatgag	caataaaggg	tttacgacga	3360
catacgtatc	tgtgtaccag	cagatccggg	tattgaggaa	aggacgggtc	gcgaaggagg	3420
ggaggagctg	cttcaggggt	gtgcggaagg	ccgatccccc	ctccagcggg	atggggacgc	3480
ccttctccgg	caagctgacg	tgcatgtgtt	ctcctgttgg	tgctcgcccg	ggcacgggaa	3540
ctgccttggg	gttgtggtag	ccgtacgggt	tcgggcgatc	ttgaggatgt	tgttgcgcgg	3600
cggaatgatg	aagatacccg	ttgcgaaatt	gaggatcggt	ggcatgtgtt	cgaggcggcg	3660
ttgctcctcg	tctgagatgc	gcatgtaggc	gattgcttgg	ccggttgaga	cagcgcgacc	3720
ccgaagtcga	c					3731

<210> 79

<211> 2367

<212> DNA

<213> *Aspergillus nidulans*

<400> 79

ctcgaggttt	tgatgtaaaa	cgagcagcag	atttgttggc	cttcagcagg	ggaagaaatt	60
tgccagaaaa	atgatgggtg	ccccgcctcc	ggctgggagg	gttgagtttt	gtttgatttg	120
tttacaccac	tacgggtccg	ttactgataa	ggaacccgga	gatcggggccc	agcggcttcc	180
ccgccaacaa	gcgcgggctt	ccaagcaaca	aagcatcaag	ccattcgaga	tacatctcac	240
ctccaatata	cctacctccc	tgaagacctt	atggctccgc	gttatatccc	ttagatgtcc	300
tgattcttga	ttattgcctt	tcacaccctt	cacgcccaatt	tctttccctt	tctttcagct	360
gtgctattga	taagataaac	aagaatggcc	ttcttcttca	atcgggggtcg	atccccgcaa	420
ccatccgacg	ttgtgagatc	aatcaaggac	ctgctgctga	gactccgtga	gccttcgacc	480
gcttctaagg	tctgtccagt	ctcttaagac	tttctccacc	gaccgatcgc	ttgctaagcc	540
tctatcaggt	tgaggatgaa	ttagccaagc	agctatcaca	gatgaagttg	atgggtgcagg	600
ggactcaagg	ttcgtacagc	tcaaaggaaa	ctaaatatgg	cgtgggtctaa	cttactgatc	660
tgtgttttgg	cagaacttga	agcttctact	gatcaggttc	atgccctggg	ccaagctatg	720
ctccacgagg	atctgcttta	cgaactcgcg	gtggctcttc	acaaccttcc	cttcgaagca	780
agaaaagata	cgcaaacctt	attctctcac	atactccgct	ttaagcctcc	tcacggaaac	840
tcgccagacc	ctcccgctcat	ctcttacatc	gttcacaatc	gtcctgaaat	tatcattgag	900
ctatgtaggg	gctacgagca	cagccaaagt	gccatgccat	gcggcactat	cttgagggag	960
gcattgaagt	tcgacgtaat	cgccgctatc	attcttttatg	atcagtcaaa	agagggggag	1020
ccagctatca	gactgaccga	ggtccagccc	aacgttcttc	agcgcggaac	aggtgttttc	1080
tggaggttct	tccattggat	tgaccgaggt	acctttgagc	tcagcgcaga	tgcatcaca	1140
acttttaggg	caagtgcaca	aagaaatcat	ttctaagaaa	ctatcctaac	acgaaactgt	1200
ttcctcagga	aatcttgacg	cgccacaaat	cccttgttac	aggatatcta	gcgacaaact	1260
tcgattactt	tttcgcgcag	tttaacactt	tcctcgttca	gtctgagtca	tatgtcacta	1320
agcgacagag	catcaaactc	ttaggcgaga	ttttactcga	tcgcgcaaac	tacagtgtga	1380
tgatgcgata	cgtcgagagc	ggagaaaacc	tcaagctttg	catgaagctc	ctgcgtgatg	1440
atcgcaagat	ggttcaatat	gagggatttc	atgttttcaa	ggtatgtgaa	ggacgcaacc	1500
tctatgaccg	cgtaggatgc	gtcgtgctga	caaagaatgt	ggttaggtat	ttgtcgccaa	1560
tccggacaag	tcagtggcag	tccagcgaat	tctgatcaac	aaccgggatc	gcttgctaag	1620
attcctaccg	aaattcctgg	aggaccgcac	agacgacgac	cagttcacgg	acgagaagag	1680
tttcctagtc	cgacagattg	aacttttacc	caaggaaccc	attgaacat	cacgttctgc	1740
gcgtgaaccg	tctcgttcga	ctgccaacac	cacgactggt	gcgtagacat	gagcggggct	1800
acttacagct	ggccgcagta	tctacatgac	acatcatcgg	tggtgttgtt	gttgtgtgtg	1860
ttgttgcatg	gtcatctggg	atcgcccttt	cgtcgcctgt	gtctcgtgtc	cagaccccg	1920
gcgtccttgg	ctgtagtctc	tgtacgtatg	gttttgcatt	tacggccagc	tggtatctgg	1980
ctttttggag	ttactttttg	ggatttggaa	agaactacac	agcttggtgc	ctggagcgat	2040
gccttggaca	acaaacagga	aaatcgacgg	aaaggatgca	ataatggacg	ggaagtttag	2100
agtccttgca	ttggaggcgg	gcataggcag	ccctggaata	cagaaccctg	tagagttaag	2160
gagtgtaaac	acccgacaca	gtatatacca	ggcccctttg	tctcagggca	cgagccaggg	2220
gcctatagag	cgataaaaacc	atgcgactat	tgataataat	gataaccagc	agcgcatagc	2280
ccagtacgag	gccttgacgt	caaggctcagt	ttctgcagaa	caatcgcat	atcgaatcca	2340
tggaatgcac	tgggcctggg	gggatcc				2367

<210> 80

<211> 2686

<212> DNA

<213> *Aspergillus nidulans*

<400> 80

aacctccagc	ccctttccag	tccttctgtt	cagttcgagc	ggctgtcgag	ctgctgctga	60
ctactccgcc	taccgtaca	acctccaacc	aaccaccgac	caccaacaaa	ccctcgactc	120
tctccccttc	tctcctccac	ttctcaacat	ccaactcccc	attctcgctc	tgttcatcat	180
ctctcctcct	cccttcctta	cctgtcaacc	tctcatttct	ttttctcttt	gttcttcgta	240
gttcgattct	aatccacccc	taaacacat	ggaaggtgag	gtttctgcca	cgcaacgcct	300
tgttcccttc	gcttgcttcc	ttccctctcc	tccacatcct	tcagctgtca	actttgcgct	360
aatttggtct	tctttggctg	cctacagagg	aagttgctgc	tctcgttatc	gacaatgggt	420
atgtcttgac	tgtgtttgat	ggcactgcga	tgccagttca	cttcctgtgc	tgccctgaa	480
cactgcctg	gtctgcgcg	tgctgcaacg	acctaccctg	ccttggtatc	ttggttgggc	540
attggcgctc	gcctatggca	agcagctatt	cagaacgatt	agcacggctg	ttctgcgtcg	600

agaatacatg	aatacatgga	ttagttgata	tgctgactcg	gggttcccta	gttcgggtat	660
gtgcaaggcc	ggtttcgccc	gtgacgatgc	cccccgcgcc	gtcttccgta	agtcaccctt	720
tcctccctta	tatacaaccc	cttccttccc	ccgtgaacct	gtcaccctcg	tcacgaacc	780
tactcgataa	aatgtgttca	ccgcgctctt	ggcacgacga	tggctcctcaag	ggcgggtgaac	840
atatcactct	atcatgcat	tacatgtcaa	gtgtgagacc	ggctgctaac	tatgtctgac	900
agcctccatt	gtcggtcgtc	cccgtcacca	tgggtaaata	tcctttaact	gtatctccat	960
caacagagat	gtggccgctg	acgtccgaat	tagtatcatg	atcggtatgg	gtcagaagga	1020
ctcctacgtc	ggtgatgagg	cacagtccaa	gcgtgggtatc	ctcacactca	gataccccat	1080
tgagcacggt	gttgtcacga	actgggatga	catggagaag	atttggcacc	acacattcta	1140
caacgagctt	cgtgtcgctc	ctgaggagca	ccccgtcctc	ttgaccgaag	cccccatcaa	1200
tcccaagtcc	aaccgtgaga	agatgactca	gatcgtcttc	gagactttca	acgtccccgc	1260
cttctacgtc	tctattcagg	ccgttctctc	cctgtatgct	tccggtcgta	ccaccggtat	1320
cgctccttgac	tctgggtgatg	gtgttaccca	cgctcgtccc	atctacgagg	gtttcgctct	1380
tccccacgcc	atctcccgtg	tcgacatggc	tggctcgtgac	ctgacggact	acctgatgaa	1440
gatcttggcc	gagcgcggat	acaccttctc	cactaccgct	gagcgtgaaa	ttgtccgtga	1500
catcaaggag	aagctctgct	acgtcgccct	tgacttcgag	caggagatcc	agaccgcttc	1560
tcagagctcc	agcctcgaga	agtcctacga	actgcctgat	ggtcagggtta	tcaccatcgg	1620
caacgagcgc	ttccgtgctc	ctaaggctct	cttcagccc	agcgttcttg	gtctggaag	1680
cggtggtatc	cacgtcacca	ctttcaactc	tatcataaag	tgtgatgtcg	acgtccgtaa	1740
ggatcgttac	ggcaacatcg	ttatgggatg	tatcactctt	agcctcgctc	tactgcactg	1800
ggcggcacta	acgaatcgat	agtctgggtg	taccaccatg	taccctggta	tctccgaccg	1860
tatgcagaag	gaaatcacccg	cccttgcgcc	ctcatccatg	aagggtcaaga	tcattgctcc	1920
tcctgagcgc	aaatactccg	tctggatcgg	tgggtccatc	ttggcttctc	tgtccacctt	1980
ccaacagatg	tggatctcca	agcaggagta	cgatgagagc	ggtccttcga	tcgtccaccg	2040
caagtgttcc	taaggatatga	gtcgcaaaat	tgttttttat	ttttggctctt	gagtctaata	2100
tgctcgcagc	tcttgagttg	tatatggctg	ttggctcgcgt	atcttctgtt	gtattaaaag	2160
atcaaacgag	atcaagggat	ggctcgcggg	ctgtctctcg	cactaggagg	aagaatgcct	2220
gaaaaaggaa	ctttgatattt	agctgtggaa	tagagatggc	ttgtttgagg	acgcttgctg	2280
cttggcgcag	ggacttgaat	ggcagcttgt	ggaaaccgaa	ggcgagaaaa	gtcgacggat	2340
actgtacgtg	gttctattgc	cagtgcgggtg	gaagcttggg	tgtgatatag	ttcaatcctt	2400
ctttgaatct	gtttgtttca	tatttggatt	ctctgcttgc	gcattctcat	cttcgagaag	2460
cgactgcagg	gattgttggg	tctgtggagc	tgatgagcgc	gccttgacca	cccttgcttct	2520
tgttttgctc	ttttgttctc	atttaaccgg	tttctccctt	ccaacccttt	gaccttgcaa	2580
cattgtctcc	cagcgcgttg	ccaaagcgaa	cttgatatca	gtatagtatg	accaagtagt	2640
ctacccaaat	aaatttttagt	acagtattgc	tagtatacag	ataatt		2686

<210> 81

<211> 4046

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 81

cctctagagt	cgagtatttt	tgggtgtaggt	cccattttct	tcaaagggtcc	tgtttagact	60
atccgcagga	aagaaattag	aatgaccggc	ttgaatggag	atgacccctga	tgactactat	120
ctgaacctta	atcaagatga	agagtctcta	cttaggtcaa	gacacagtgt	cggctcagga	180
gcacctcata	gacaaggctc	tttagtgcg	cccgaagaa	gccgactgaa	caatcctgat	240
aatccacttt	ttattatgcg	cagaaaacgc	aggagcagat	gaatcacctg	gatgttttac	300
catcaagtac	cgggtgaaac	ccaaatgcaa	ctcgtcggag	tggctccctg	cgctccaaag	360
gctcagttag	aagcaaat	agtggccg	aaacggatag	ctatctttta	caagatatga	420
atactactga	caagaaggct	tccgttaaaa	taagttagatga	aggtgttg	gaagacgaat	480
ttgataaaga	tgggtgatgtg	gacaatttcg	aagaaagctc	cacgcagccc	ataaataagt	540
ctatcaaacc	attaagaaa	gaaacgaatg	atacattgtc	atcttggcag	atgtactgtt	600
atctcattac	gttttgggca	cctgctccaa	ttcttgcttt	ctgcgggatg	ccaaagaagg	660
aaagacaaa	ggcgtggaga	gaaaagggtg	ctttaatttc	tgtcatcttg	tacattgggtg	720
cgattgtggc	tttcttgact	tttgggttca	ctaaaaccgt	ttgtagtagt	tcgaaactac	780
gtttgaaaaa	caacagaagt	tcaacagaat	ttgtcgtaat	taacggtaag	gcttatgaat	840
tggatacttc	ctcgcgttcc	ggtatacaag	acgttgaagt	agattcagac	accctttatg	900

ggccctggtc	agatgctggt	aaagatgctt	cgttcttggt	tcaaaatgtg	aatggtaact	960
gtcataacct	tataactcca	aagagtaatt	cttccattcc	ccatgacgat	gataataatt	1020
tagcatggta	ttttccttgt	aagttaaaga	atcaagatgg	ctcttcgaag	ccaaacttca	1080
cagttgaaaa	ttacgcagga	tggaaactgtc	atacgtctaa	agaagatagg	gacgcatttt	1140
acggtttaaa	gtcgaaagct	gatgtttact	tcacttgga	tggataaaag	aactcttcta	1200
gaaacttgat	tgtttataat	ggcgacgttt	tggatttaga	tcttcttgat	tggttgaaa	1260
aggatgacgt	tgactatccc	gttgatttcg	atgacttgaa	gacttcaaat	ttacaagggt	1320
atgatctttc	gttggttttg	tcaaatgggc	atgaaagaaa	aattgcgaga	tgtttgagcg	1380
aaattattaa	agttggtgaa	gtagactcca	aaaccgtcgg	ttgtattgcc	tctgatgtcg	1440
ttttgtatgt	ttctctggta	tttattcttt	cagtggtgat	aattaaattc	ataattgcct	1500
gctacttccg	ttggactgta	gctaggaaac	aagggtgcata	tatcgtggac	aataaaacaa	1560
tggataaaca	cacaaacgat	atcgaggatt	ggtctaataa	tattcaaaca	aaagctcctc	1620
taaaggaagt	agatcctcat	ttgaggccaa	agaaatactc	aaaaaagtcg	ttgggacaca	1680
agcgtgcttc	aacctttgac	ttgctgaaaa	aacacagctc	caaaatgttt	caatttaacg	1740
aatctgtgat	agatctagac	acctccatga	gcagttcact	acaatcttct	ggttcataca	1800
gaggaatgac	aacaatgacc	actcaaaatg	cttggaact	ctcgaatgaa	aacaaagctg	1860
tacattcccg	taatccatct	actttgttgc	ctacatcctc	gatgttttgg	aataaagcga	1920
cttctctctc	tgtaccagga	tcacgtctga	ttcagagtct	tgattcgacg	attatacatc	1980
ccgatatcgt	tcaacaacca	ccactggatt	ttatgccata	cgggttccca	ttgattcata	2040
cttatctgtt	tgtattctgt	tattctgagg	atgaagaggg	tttaagaacc	actttagact	2100
ctctttctac	cagagattat	ccaaattccc	ataaactact	gatggttggt	tgtgatgggt	2160
taattaaggg	ctcgggcaac	gataagacta	ctccagagat	agcgttagga	atgatggacg	2220
actttgtcac	cccacctgat	gaagttaaac	cttactccta	tgtggcagtg	gcacaggct	2280
ctaaaagaca	caatatggcc	aagatatatg	cgggttttta	caaatatgac	gattctacaa	2340
ttccaccaga	aaatcaacaa	cgtgtcccaa	tcattacaat	tgtgaagtgc	ggtactcctg	2400
cagagcaggg	ggcgcgcaaa	cccggttaaca	gaggtgaagc	tgattctcaa	attattctga	2460
tgtccttttt	agaaaaata	acatttgatg	aaagaatgac	tcaattggaa	tttcagcttt	2520
taaaaaatat	ttggcagatt	acggggctaa	tggcagactt	ctacgaaacg	gtacttatgg	2580
ttgatgctga	tactaaagtc	tttcccgatg	ctttaactca	tatggtcgct	gaaatgggtta	2640
aagatccttt	gattatgggt	ctttgtgggtg	agaccaagat	cgctaataag	gcacaatctt	2700
gggtaactgc	aattcaagtg	tttgagtact	atatttcgca	tcatcaggct	aaagcttttg	2760
aatctgtctt	cggttcggta	acttgtttgc	cgggatgttt	ctcaatgtat	cgtataaaat	2820
ctcctaaagg	ttcagatggg	tattgggtac	ctgtattggc	aaatccagat	attgttgaaa	2880
gatattcgga	taatgttaca	aacactttgc	ataagaagaa	cttattatta	cttgggtgaag	2940
atagattttt	atcttcatta	atgttaaaga	ctttccctaa	gagaaagcaa	gtatttgttc	3000
caaaagctgc	ttgtaaaact	attgcccctg	ataaattcaa	agtcttactt	tcccagcgtc	3060
gaagatggat	taattctacg	gtacataacc	tttttgaatt	agttctaate	agagacttat	3120
gtggcacctt	ctgtttttcc	atgcaatttg	tgattgggat	tgaattgatt	ggtactatgg	3180
tactgccgtt	agccatttgc	tttactattt	atgtcattat	ttttgccatt	gtatcaaaac	3240
ctacaccctg	aatcacttta	gttttactgg	caattattct	tgggtctgcc	ggcttaattg	3300
ttgttataac	tgctacgaga	tggctgtacc	tatggtggat	gtgcgtatat	atttgtgctt	3360
tgctattttg	gaatttcgta	ctaccttcac	atgcgtactg	gaaatttgat	gacttctcat	3420
ggggtgatac	gagaactatt	gcgggaggtg	ataaaaaggc	acaagacgag	aatgaagggtg	3480
aatttgatca	ctcaaagatt	aaaatgagga	catggaggga	atttgaaagg	gaagatattc	3540
tcaatcgga	ggaggaaagt	gactccttcg	ttgcatagac	agtatgaaaa	tatttttact	3600
gtgatactta	caagttgata	tatggttgtg	tgtaaacttat	ttatttgaga	ggtattttta	3660
cacaccttag	aactaaaact	taataaataa	atatttctct	atctttaaag	gcacatatta	3720
cgtgggctaag	gcaattacag	ctgatatact	gtaaaactca	tgtcgccact	aaattcttct	3780
aacacgcgtt	ctgtctcttt	ccaagggact	ccgaatatgc	cactatttat	ctgtggcatt	3840
tccaatttat	attcccctat	tgggtatttg	atgtggccgt	ttaaatagtc	accgattgaa	3900
tcttcacttg	ttcgagtttt	gtcttttgc	tctctaaagg	tcttcaattt	atctaaagca	3960
agttttgtat	aattcaaaat	actttgcttt	tctccatgac	ttgaacctcc	aaatgatgat	4020
gtaaacaagc	aacaaatcag	cagatc				4046